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IN THIS ISSUE

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by ERIC SHIPTON

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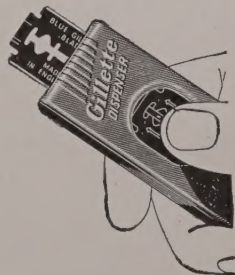
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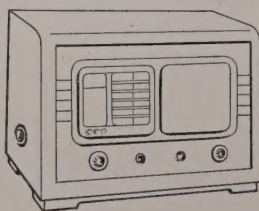
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Two Brazils

II. The Amazonian North

by R. ALLAN MURRAY

In an article published in our June number Mr Murray described the North-East of Brazil, one of the many Brazils whose inhabitants are divided by natural features into "island communities" yet have much in common. He now turns to another of these Brazils and its peculiar characteristics

WHAT Brazilians call "the North" is virtually coextensive with the Amazon basin, an immensity of forests and waters and plains larger than all Europe outside Russia. The land is imperfectly known and very thinly peopled; it harbours aboriginal tribes who avoid contact with the immigrant settlers, and many of the settlers themselves live far from any centre of civilized life.

But the Amazon has its own focal points. In the course of an extensive air journey I visited Manáus, the capital of Amazonas, and the Federal Territories of Guaporé, Acre, and Rio Branco. Guaporé lies along the Bolivian border, Acre in Brazil's westernmost corner, and Rio Branco in the farthest north against the frontiers of British Guiana and Venezuela. If Manáus is regarded as the hub of a great wheel, these Territories touch its rim.

Life in these communities cannot explain the whole northern canvas, but it reveals a common pattern distinct from that of the North-East which I traced in a previous article. The essential difference is one of outlook, and it can be simply stated. While the North-East faces the sea, which brought colonists from Europe and slaves from Africa, the North turns towards the Amazon, which penetrates the continent.

This difference explains a great deal. In the inward-looking North man has challenged Nature without taming it; wherever he has settled he lives by challenging it. A thin, tenacious web of human activities runs through exuberantly savage landscapes, and wherever this web has been spun the significant figures are the immigrant pioneer and the native Indian. Sometimes they are mutually hostile; but generally their ways have merged; and always the pattern of civilized life owes much to both.

As on the coast, the Church has played an active part in colonization. Manáus (which takes its name from an Indian tribe) became a Jesuit mission centre soon after the Portu-

guese built a fort there in 1660, and the Church's work has not greatly changed since then. Missionaries labour incessantly on the broad, shadowy fringes of settlement life. Once at a remote Amazonian airstrip I was joined by two Franciscan priests; while we waited for the dawn departure they discussed Indian waywardness much as the first Jesuits must have spoken centuries ago.

The Negro strain, prominent in the racial mixture of the North-East, is much less conspicuous along the Amazon. The State of Amazonas never had an organized slave-owning society; hence the comparative rarity of the mulatto (Negro and white) and the *cafuso* (Negro and Indian). The common type, though not exclusively Northern, is the *caboclo*—a product of the progressive blending of European and aboriginal stocks. Already this process has reached a point where the Indian strain predominates.

It is a hardy mixture. General Rondon, the head of Brazil's Indian Protection Service and himself of Indian blood, is in his nineties. I have met army officers with much the same racial characteristics who have spent most of their lives on frontier commissions and in other remote administrative posts. And in Manáus I recall the quiet pride with which the State Governor told me he was of Portuguese and Indian descent. There were, he guessed, possibly 30,000 "unabsorbed" Indians in his State; two tribes he described as "dangerous" were established only seventy miles to the north.

All estimates of Brazil's "unabsorbed" Indian population are at best no more than informed guesses, but aboriginal society has some well-defined strongholds in the North, tracts peopled only by one subdivision or another of the four main Indian groups in Brazil—the Tupis, the Tapuyas, the Arawaks and the Caribs. In the east the most numerous of these strains, the Tupi, encroaches on coastal civilization; and in the interior of Acre, at the other end of the



photographs by the author

The Opera House at Manaus (above) is now only a monument to the gay life that ended with the collapse of the Amazonian rubber boom forty years ago. (Below) The Indian community of this metropolis hemmed in by the jungle still lives, as always, in shacks on stilts that line the black waters of the Rio Negro



Amazon basin, there are said to be more Indians than settlers.

It is easy to understand why Indian blood predominates in the North, easier still when it is remembered that white immigration is far smaller now than in the heyday of the Amazonian rubber trade. Migrants still flow in both directions between the coastal State of Ceará and the rubber districts, but many, if not most of them, now have Indian blood.

The rise and decline of the rubber trade have influenced the fortunes of the whole Amazon basin and contributed greatly to its social pattern. Other commodities—fruits and fibres, hides, hardwoods, alligator skins, Brazil nuts, vegetable waxes and a great deal else—find their places in the vagrant traffic of the great river and its tributaries. But rubber was the prize that attracted the most determined pioneers and the shrewdest of merchant venturers.

To meet the demand for the earliest motor tyres (which helped to push the price of the so-called Para rubber to its peak of 12s. a lb) pioneers and Indians alike forced their way into virgin forests for rewards often meagre and always hazardously won. Communities at the ends of remote tributaries collected and shipped the latex brought in from the en-

circling forests and grew into boom towns, where the rubber gatherers, who worked only in the dry season, spent their money during the floods. Manáus was their metropolis; fortunes made from rubber built its Opera House of granite and imported marble, its cobbled streets and iron bridges and tram-cars that still run to the jungle's edge.

The rubber trade began more than a century ago. In 1825 Brazil exported thirty tons of forest rubber. By 1912 exports had reached 42,500 tons, but this was the crest of the boom, which collapsed in the same year under the competition of Asian plantations. Seeds of the *Hevea Brasiliensis*, originally taken to Kew Gardens in 1876 from Santarem, on the lower Amazon, had by now matured in Ceylon, Malaya, and the Dutch East Indies, where plantations were yielding between 11 and 18 lb a tree, against the Amazonian average of 3½ lb. Asian shipments sprang from four tons in 1900 to 45,000 in 1912. By 1930 they had reached 800,000 tons, and the Amazon's day was done.

No plantation rubber is grown anywhere in Amazonia, although this is rubber's original habitat. Henry Ford once experimented on a spectacular scale south of Santarem, on the Tapajos river just above its confluence with the Amazon. But he





At Manaus the river is forty-five fathoms deep even in the dry season, and in the wet season it rises to a depth of fifty fathoms. Ocean-going steamers can berth at the floating quays to which cargoes are slung by overhead cables suspended from the towers seen on the right of this picture

abandoned these plantations in 1946, after they had cost twenty years and reputedly \$15,000,000 to develop. Labour is said to have been the major difficulty; yet at the height of the rubber boom, forests much more remote than the Ford plantations—chiefly in the regions of the Madeira and Acre rivers—are said to have attracted 20,000 immigrants a year.

Wild rubber still finds its way from these forests down the Amazon to the sea. But only half as much as in the boom years is now tapped, and it goes mainly to the factories of São Paulo in Brazil's industrial South-East—almost as far as the European markets of half a century ago. The price of local rubber is still a daily topic of conversation at both ends of the Madeira-Mamoré Railway, which runs from Porto Velho, near the head of navigation on the Madeira, to Guajará-Mirim, 227 miles upstream on the Bolivian border.

This railway is a curious monument to the hopes and hardships of the rubber pioneers. It is the only railway in the whole Amazon

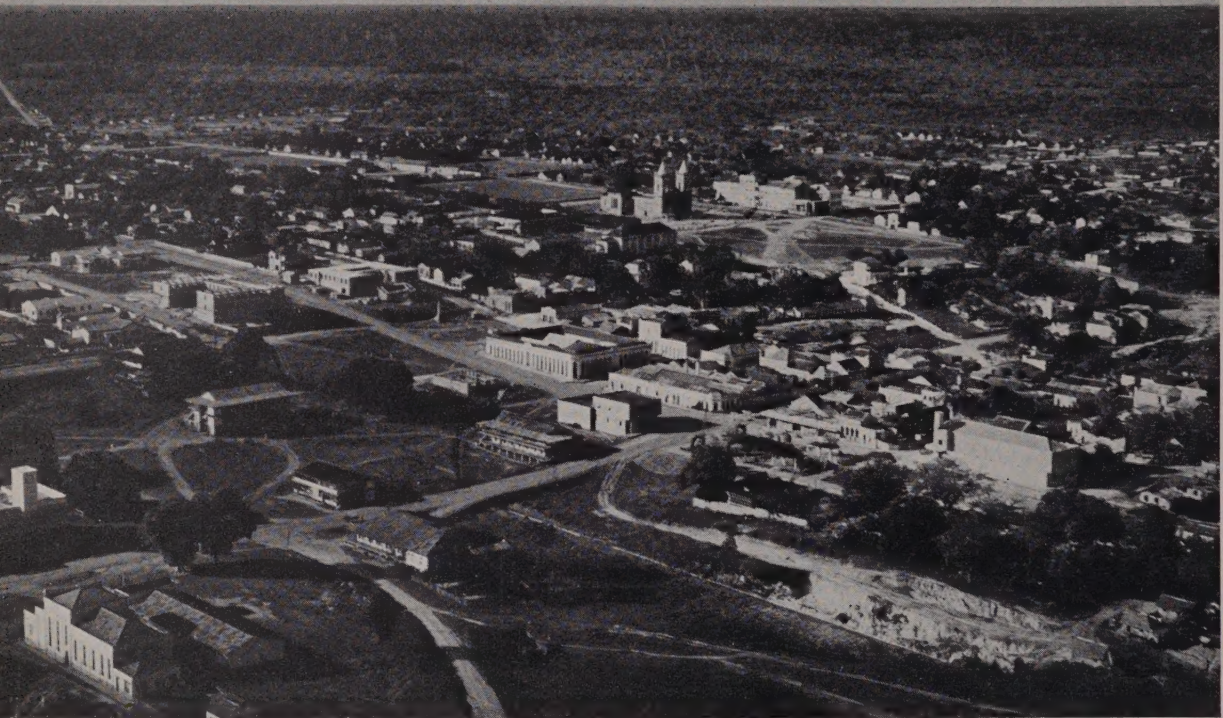
basin. It by-passes nineteen rapids on the Madeira and its tributary the Mamoré, and was built chiefly to facilitate the passage of wild rubber to the Amazon and the sea. Attempts to build it began in the 1870s, but the successful effort was not completed until 1912, the very year in which the rubber boom collapsed.

Dom Pedro II, the Brazilian Emperor, expected the line to become "a key to the heart of the continent". In fact, the ambition of Colonel Church, an American engineer who secured the first concession to build it, was not only to expedite rubber shipments, but to open up the plains of northern Bolivia. These plains have 3000 miles of navigable rivers that drain northwards over the treacherous rapids into the Madeira and the Amazon. On every other side access to the plains was even more difficult. Overhung on the west by the highest shoulders of the Andes, the shimmering green tableland is bounded on the east by the swampy jungle of Mato Grosso; southward lies the parched wilderness of the Chaco. The plains them-



Of the 20,000 tons of wild rubber which Manáus still handles every year, some is processed locally, like the 66-lb balls being loaded (above) into a truck by a partly Indian workman. Other forest cargoes include piassava fibre (below), which is in world-wide demand for making brooms and brushes





Porto Velho, where the Madeira-Mamoré Railway begins, is a small, clean town of 9000 people carved from the jungle. In the left foreground stand the wooden buildings left by the railway builders. When the line was reopened twenty-two years ago, an ancient locomotive was pressed into service—

selves were thought to offer abundant pastures suitable for cattle ranches if a safe trade route could be developed to link them with the outer world.

Colonel Church had travelled in this *ultima Thule* of the continent and wrote of it as an "earthly paradise". He had seen some of the lavish establishments which patriarchal rubber merchants were able to maintain above the rapids thanks to the risks run by Indian porters who braved the falls with cargoes of Bolivian rubber. A century ago even grand pianos are said to have been portaged into this shadowy world.

If the plains were a doubtful paradise, the forests below them proved a grim purgatory. At Porto Velho the first railway-builders, forced to live on the country, found that its savage fertility strangled the crops and vegetables they planted. Canoes had to be sent 150 miles downstream for fruit and eggs; imported cattle, tormented by forest pests, broke loose and had to be hunted and shot; there was no other beef nearer than Manáus, 600 miles away; and for lack of ice precious meat supplies putrefied in three hours.

Two generations later the railway was

completed. The surpassing problem was always malaria. Labour came from many countries—some of it from British Guiana and Barbados—but there were never more than 4000 men at work, for the sick-roll was always long, and the toll of disease was exaggerated by the many who fled, so that thousands of intending immigrants turned back on reaching the mouth of the Amazon. Local contracts for sleepers were never fulfilled, since native labour was monopolized by the rubber trade. Jarrah wood sleepers from Australia were therefore brought half-way round the globe to one of the world's densest forests.

The railway itself had been abandoned when the Brazilian Government reopened it twenty-two years ago. In the station yard at Porto Velho I was shown "Old Collins", a locomotive brought out by the first American contractor and named after him. Salvaged from the jungle with a tree growing out of its funnel, this ancient engine is again pulling trains after serving in turn as a hen-coop, a water-tank, and a baker's oven.

Today the railway carries to Guàjará-Mirim bright new motor-cars and cement



—known as “Old Collins” after the original contractor who brought it from Philadelphia. At the other end of the line is (below) Guajará-Mirim, populated by rubber merchants and Syrian traders. Across the Mamoré River, beyond the fringe of jungle, lie the spacious and still empty plains of northern Bolivia



that comes more cheaply from Liverpool than Rio de Janeiro; but visiting aircraft still discharge their cargoes into an ancient oxcart. In Porto Velho, where the line begins, I enjoyed excellent meals at which Bolivian beef was served. It had been brought down by the railway, but it goes no farther than Porto Velho.

For all their disappointments, the railway builders wrought deeper changes than they knew. It is true that the Bolivian plains are still a wilderness, and that Brazilian rubber is no longer a staple of international importance. But the medical services introduced by the railway's doctors have broadened into a silent revolution. The Candelaria Hospital which they built outside Porto Velho dealt with some 30,000 cases of malaria during the five years when the railway was being constructed. It has crumbled in the forest, and when I visited the site its stones were being cleared away to make room for a Franciscan medical mission. It had served its purpose; I was told by a local doctor that cases of malignant fever, of a kind that forty years ago

struck workers down in their hundreds, now number no more than six or seven a year; and the patients are generally rubber-tappers from far beyond the town.

Times have changed in Porto Velho, but the jungle is still a close neighbour. Just across the river it remains untrodden: I crossed it by air on my way from Porto Velho to Rio Branco. The flight between these neighbouring capitals of Guaporé and Acre took an hour and three-quarters, and on the Acre river I saw a steamer which had taken five-and-a-half months to link the same two towns. This was an extreme but far from rare instance of the pattern imposed by the jungle on trade routes in the North.

The town of Rio Branco (not to be confused with the Federal Territory of the same name) also owes its history to rubber. At the turn of the century this corner of Brazil was a disputed frontier. The inhabitants, who received much of their rubber across the Bolivian border, resented the customs dues levied on it and declared themselves a republic, but their rebellion was suppressed.

Access to Guaporé Territory from the outside world owes far more to aircraft than to the railway. But local customs do not change. At Guajará-Mirim the air-liner delivers its cargo to an oxcart





Everywhere life clings to the rivers. This steamer at Rio Branco on the Acre river took five and a half months to come from Porto Velho—a trip which takes one and three-quarter hours by air

In 1903 Bolivia ceded land to Brazil in exchange for a monetary payment and a Brazilian undertaking to complete the Madeira-Mamoré Railway. Baron Rio Branco, who signed the treaty for Brazil, gave the town its name and the Territory of Acre that it governs.

Many of the faces I saw in the town of Rio Branco were noticeably Indian; and the names of its two hotels, the Madrid and the Libanes, reminded me that everywhere in Amazonia, and especially in its remoter settlements, Spaniards and Syrians are prominent members of the merchant hierarchy. Outside the town, most of Acre's settlers are rubber-tappers—a tattered, uncouth army of immigrants driven by drought from their native North-East. Theirs is civilized life at its crudest and loneliest.

From his chosen clearing, the tapper generally begins work at two or three in the morning—the hours at which the sap is said to flow most freely. By noon he has bled the trees he can find in the forest. The cups of latex are emptied on a second round; and

until daylight ends he smokes the liquid into balls of crude rubber over his solitary fire. Although the Governor of Acre told me of a plan to encourage small-holdings where food could be grown alongside a cash-crop of plantation rubber, the methods described are still the only ones practised—in Acre and wherever rubber is harvested throughout the Amazon basin.

This is the trade that built the fortunes of Manaus, a city of about 100,000 people which once claimed to be the richest city *per capita* in the Americas. It stands on bluffs above the Rio Negro, just before the point where that river pours a broad, dark flood into the yellow waters of the Amazon, 1000 miles from the sea. Its floating quays can berth ocean-going steamers whatever the state of the river; and it draws forest cargoes from as far away as Iquitos, in the uplands of Peru.

The wealth that flowed from rubber has evaporated long since, leaving behind this city of solid Victorian granite hemmed in by the jungle. There are many reminders of

its past splendour, from the ornate façade of the Opera House, where Indian children play on terraces that once heard the creaking of landaus and the swish of crinolines, to the forlorn vastness of the Grande Hotel, where rubber millionaires and their ladies junketed in days gone by. It was in this hotel that, searching for water to shave with, I ran across a monumental piece of Victoriana, inscribed: "By Her Majesty's Royal Letters Patent, Chéavins' Improved, Gold Medal, Self-Cleaning Water Filter". It was as florid as the Opera House, and as empty.

But behind these evocative façades is another Manáus. In the creeks beneath its granite bridges and along the river-front below the bluffs on which the airport sprawls, craft of all kinds, and shacks that rise on stilts above the flood level, house a teeming Indian community. They win their livelihood from the river and use it as their only highway; and their ways are much earlier than the Victorian.

Manáus may be destined once again to play a modern role in an age from which it has remained strangely aloof. When I visited the city, an impressively long runway was being built at its airport, so that the heaviest air-liners might be accommodated when eventually a direct route is opened from New York to Rio de Janeiro and Buenos Aires. This route would be appreciably shorter than the present one round the coastal bulge, since New York, Manáus, and Buenos Aires are points on what is almost a straight line.

For Manáus, such a development would not resurrect past glories. But it might lay their ghost, and set the seal of modernity on this slumbering city more firmly than for half a century. The direct route has still to be opened, for there is still the jungle to contend with, which means unpredictable weather and a dangerous lack of emergency landing grounds. But these problems are being tackled, and their solution would leave Manáus with no rival claimants to the busy inter-American air traffic that by-passes it by 1000 miles. For the moment this memorable city remains the centre only of its own inward-looking world.

At first sight, the northernmost Territory of Rio Branco presents to the traveller an obvious contrast with those regions where the rubber trade has left such a sharp impress. This is an immense landscape of bright green savannas, rimmed by the highlands of Venezuela and British Guiana, and separated from Manáus by tracts of jungle. It is more

thinly peopled than any other administrative unit in the Amazon basin; census figures allow eight square miles for every inhabitant of the Territory. Its activities are almost exclusively pastoral. When the Rio Branco is in flood, cattle are shipped to Manáus; in the dry season all traffic comes to a standstill.

Nature's contrast is vivid and real; it has given rise to the hope that one day these northernmost savannas may raise beef, and other foods, for export. Yet man's outlook seemed essentially the same in Rio Branco as I found it elsewhere in the North. Turning inwards to challenge Nature, the immigrant has understandably absorbed not only Indian blood but Indian ways. The disappointments of Henry Ford on the lower Amazon, of the pioneers who built the Madeira-Mamoré Railway, and of progressive administrators like Acre's Governor, who sought to attract rubber-tappers from the forests to small-holdings where they could grow sustaining food as well as rubber and be within reach of schools and medical centres—all these seemed to knit themselves into a common pattern, vividly reflected in the words of a German settler I met 400 miles north of Manáus, at Boa Vista, the capital of Rio Branco Territory.

The northern plains, he told me, could certainly raise enormous herds if capital were available to clean the pastures, improve the breed, and eradicate cattle pests which he thought might have been brought in from British Guiana. All this was practicable, and the Indian cowboys (Caribs and Arawaks of the Brazilian tribes known respectively as *Macuxi* and *Uapixana*) were excellent workers. But there was a good deal else that might be done too. He himself lived well because he did it. His own cows gave him milk, butter, and cheese; he grew vegetables and citrus fruits for his own table; and his fowls laid abundantly. First-rate tobacco had been cultivated in the district, and the Benedictines who came to Boa Vista in the 1920s had sent to Germany samples of cotton equal to the best staple used in any European mills.

I asked the obvious question. Had not other immigrants realized these possibilities? They had grown tobacco, was the reply, but they loaded it with impurities to make up weight, and eventually Manáus refused to buy. What could be expected, the German added, from a thin trickle of immigrants who came only from the rubber districts? All they had learned was what the Indians had taught them, and that was chiefly how to grow manioc.

William Lambarde and his *Perambulation of Kent*

by BERNARD DENVIR

THE first Elizabethans were explorers in their very bones. The instinct which led Drake and Raleigh beyond the confines of the seas inspired countless others to voyages of discovery less spectacular in their range, but not in their import. The great writers themselves broke new ground within the territories of the human soul, and everywhere there was a new appreciation of human significance. The same spirit animated another group of men, whose aims were more domestic, more limited, but of great importance both to their contemporaries and to ourselves. For they provided the genealogy of the new national awareness, they laid the spiritual foundations of patriotism, and whilst others found new worlds, they explored old, and, not venturing beyond these coasts, made the most amazing discovery of all—they discovered England. Patient explorers in time and space, travelling painfully along badly constructed roads, or delving into the uncatalogued riches of dispersed monastic libraries, only occasionally receiving a cryptic word of thanks from Mr Secretary Cecil, or a wryly gracious acknowledgement from the Queen, they were the real fathers of modern English scholarship.

But they lacked no human touch. Homely philosophy shared sentences with Cicero, countrymen's eyes saw the significance of Roman remains, and, above all, there was no specialization. History, geography and etymology went hand in hand, jostled by a crowd of such minor interests as geology, medicine, economics and astrology, whilst over all brooded the shadow of the universal philosophical aunt, Theology.

William Lambarde was one such explorer, and though he has not gained the fame of Camden or Stow, his achievement was none the less vital, for not only was he a pioneer in the discovery of Anglo-Saxon and a historian of English law and usage, but he produced the first county guide-book and history. *The Perambulation of Kent* is a landmark in political and economic history, a human and readable book, and as complete a picture of an Elizabethan county as we are likely to find anywhere.

He was typical of his time and country. His father, a Ledbury draper, came to London, prospered, became sheriff and alderman, bought the manor of Westcombe at Greenwich and, on his death, left a sum of money for the repaving of the streets of his native town. At the age of twenty, in 1556, William was admitted to Lincoln's Inn, where he came into contact with a man who was to influence the entire course of his life and determine the pattern of his future activities. Laurence Nowell was a Lancashire man, the brother of the Dean of St Paul's, and a member of the circle of Archbishop Parker. Rector of Sutton Coldfield and later Dean of Lichfield, his intellectual energy was only matched by his inability to translate it into any permanent form. An indefatigable collector and transcriber of manuscripts, a diligent traveller, he virtually rediscovered the Anglo-Saxon language, produced a map of Anglo-Saxon England and in 1536 wrote at length to Sir William Cecil about his ideals in cartography, emphasizing the need for more accurate maps. He did much to explain the geography and the history of Ireland, but as a geographer he was outclassed by Saxton, as a historian by Camden.

In the course of the *Perambulation* Lambarde refers to a map of Kent which may well have been connected either with Nowell, or with one of his circle. "If I faile in this destination, the faulte is his that made the Carde of this Shyre, and the follie is mine that followeth him", he wrote at Rochester. It is not known for certain which "Carde" it was that Lambarde used but it seems probable that it was one by an unknown cartographer of which three specimens still survive, each representing a different stage in the engraving. The earliest of these specimens is reproduced, at a slight reduction, herewith.

Nowell gave Lambarde all his transcripts and manuscripts, amongst them the project for a *Dictionarium Angliae Topographicum et Historicum*, and it was this which turned Lambarde, already proud of being a Kentish man, to the analysis and description of his own county, hoping thereby "to encourage



Reproduced by courtesy of The Royal Geographical Society

This very rare map, of which only three specimens are known, is in all probability the one to which William Lambarde referred in his *Perambulation of Kent*, written in 1570, as "the Carde of this Shyre" and thus the first English county map printed. The evidence is given in a paper by Edward G. Box, published in *Archaeologia Cantiana* in 1926. The writer shows that the specimen in the possession of the Royal Geographical Society, reproduced above,

is the oldest of the three and that, while it closely resembles the map of Kent published in Saxton's *Atlas* of 1579 and dated 1575, there are differences of detail which preclude its having been copied from Saxton's; had it been his, he would have put his name to it or Lambarde would have attributed it to him. Mr Box put forward the following theory to account for the map's origin: "In 1570 Saxton's survey of Kent was so far advanced that he had begun a map of the county.



Someone, perhaps an assistant of Saxton in his survey, made a map of Kent, perhaps at the instance of Lambard, and obtained by some means a copy of Saxton's unfinished map. The unknown cartographer based his map on Saxton's map and copied it more or less closely, but put into it some names of places which Saxton had left out, such as 'the Wealde', and the names and the boundaries of the Lathes, and made other alterations and additions, and completed it in

time for it to be known to Lambard while writing in 1570 his first draft of his MS. of the Perambulation. The map so made was the 'Carde of this Shyre'—the rare map. Saxton later took his unfinished map in hand, put in names which are not in the rare map, added minor details which also are not in the rare map, and completed it and dated it 1575. This theory perhaps accounts for the resemblances and differences between the two maps."

some one able man in each shyre to undertake his owne, whereby many good particularities will come to discoverie everywhere”.

The manuscript of the *Perambulation* (now in the possession of the Kent Archaeological Society) is dated 1570—the year in which Nowell handed over his treasure trove—and is entitled *The first treatise of the Topographical Dictionarie Conteyninge the description and Historie of the Shyre of Kent*, an accurate enough description of the nature of the book, though the first printed edition of 1576 had the more famous, and clearly more popular, title. It was dedicated to Thomas Wotton, who recommended it to his fellow-countrymen, with an exhortation that they should “unto the Author yeeld our very harty and perpetuall thanks”.

Reprinted within the author’s lifetime and again in 1826, Lambarde’s *Perambulation* inaugurates magnificently the tradition of English regional scholarship. Many of his historical discoveries and generalizations have since been disproved by those who still owe a debt to him—the theory for instance that there was once a bridge between Dover and Calais, though it may please those who believe in European federal union, can no longer exercise the imagination of historians. But he was inspired by no mere pedantry. Observant and affectionate, he saw in the glories of the past no more than a presage of the lusty Elizabethan present. At Gillingham he mused on the ships of Howard of Effingham’s fleet lying in the Medway.

I am provoked at the contemplation of this glorious spectacle, first to thanke God our mercifull father, and then to think dutifully of our good Queene Elizabeth, by whose vigilant ministrie, care, and providence not onley the drosse of superstition and base monies were first abolished, the feare of outward war removed, rustie armour rejected, and rotten shipping dispatched out of the way but . . . this River fraught with these strong and serviceable shippes sufficiently, which so apparent and inestimable benefits, the like whereof this Realm never at any one time hath enjoied, if any man perceave not, hee is more than blockish.

For of all other counties Kent most enjoyed the prosperity of Elizabeth’s reign. Surplus fruit and vegetables were now being transported to the London market, the ironworks of the Weald were turning out cannons and muskets for service in the Low Countries and Germany, whilst the roads along which Lambarde travelled were metalled with cinders and clinker which the law compelled the Iron-Masters to deposit there annually.

Huguenot refugees had imported new skills and crafts to towns such as Maidstone; and at Dartford Germans had built two mills “of rare devise, the one emploied for the making of all sortes of Paper, the other exersysed for the drawing of Iron into Wyres and bigger lengthes and fashions, as well for the readier making of Nailles of all kindes, as for the easier dispatch of Barres for Windowes and other services”.

Wealth was apparent, and more regularly distributed than anywhere else in England thanks to the particular custom of land-tenure in the county (Gavelkind) on which Lambarde discourses at great length. There were few pretensions to gentility: “a man may find sundry yeomen otherwise for wealth comparable with the gentle sort, that will not yet for all that, change their condition, nor desire to be apparalled with the titles of gentry”.

But always there was the influx of courtiers and merchants from London. Lambarde himself was an example and he noted regretfully that the changing population made for a certain lack of tradition. Great houses like Knole were already part of the landscape, but the county was not yet scattered with those more pretentious claims to landed fame which would adorn it throughout the next two centuries. The age of the commuter was still in the future, though its shadows were already being cast.

Nowhere else were the common people more “free and jolly”, and Lambarde records the existence of some seventy fairs still held on the old church festivals. Running close beneath the surface was the old Roman structure, reinforcing the more recent foundation of the Elizabethan church settlement. At Motindene (Mottenden) they still remembered the old processions on Trinity Sunday “wherein they wanted neither coape nor canopie, crosse nor candlestick, flagge nor banner, light nor incense, piping nor chaunting neither yet any delightful thing that might with the glorie thereof amaze the seely beholder, and ravishe him, as it were, into a certain Popishe heaven”.

Lambarde himself was a convinced Protestant, as beseeemed a pupil of Laurence Nowell. Even Thomas of Canterbury came in for ungracious and biting treatment, and nothing too harsh could be said about those Popish superstitions “by which the silly people were miserably mocked”. At Boxley for instance there was the Holy Rood, made by a clever carpenter “to roll its eyes and impress the idiot people”. But, though he may not have gone deeply into the causes of it, Lambarde

was aware that towns like Canterbury were declining. The fact was noted with alarm at Westminster: "not only the good civil policy of the said city is much decayed, but also the wealthy occupying, the populous inhabiting, and the beautiful building thereof be like to come in great ruin, depopulation and decay not a little to the extenuation of that part of the realm, as well in the eyes of all strangers, as in the eyes of such personages as shall have happen to repair there". (*Stats. of the Realm* III, 917.)

Part of the old ecclesiastical wealth had been diverted to the building of new schools and Lambarde records the existence of eleven, including the more recent ones at Canterbury and Sandwich. At Dover church funds had been devoted to the rebuilding of the fortifications, and everywhere there were signs of the Tudors' awareness of foreign dangers and domestic strength. Cobham, the Lord Lieutenant of the county, had introduced logic and order into the arrangement of the beacons, which now supplied a perfect alert system, the value of which was amply demonstrated when the King of Spain's fleet ventured into the Channel. It was not surprising really that Cecil was so interested in map-making for a knowledge of the country implied the security of defence as well as the pleasure of scholars.

More tangible dangers existed. Towns were being left high and dry by the recession of the sea, and Lambarde was, as the eventuality has proved, more pessimistic than he need have been, seeing flourishing ports "within the space of a few years utterly destroyed". But Kent, despite its heavy afforestation, was spared the ravaging of wild beasts which could still afflict the woods of the northern and midland counties, and, as the gateway to England, its communications were better than those anywhere else in the country.

Everywhere signs were still to be found of a more ancient culture. "In the parish of Barham a little from the side of the wood, and about six miles from Dover, appeereth yet an entrenched place with three ditches, which, whether it were the place where Caesar or after him some Saxon, or Danish captaine encamped, I cannot informe you." But, Lambarde goes on, "let us consider a few other places, and then haste us to Canterbury." There you get the authentic flavour; observation, knowledge and the actual sense of a 'perambulation'. At Hodland "my late neighbour Maister Tylgham discovered in the very centre thereof '*Ūrnam cineribus plenam*' an earthen pot filled with ashes an assured

token of a Roman monument: the like whereof (as Twyne writeth) was in the reigne of King Henrie the Eighth digged up at Barham downe by Sir Christopher Hales."

Lambarde's mind too had the same stratifications. Caesar was not so much a figure of antiquity as "a great captain", the sound of whose wars could still be heard. And when he commented that cider was the common drink—for, though hops had been introduced, and at Bethersden the Lovelaces were experimenting in their cultivation, Kent was not yet the hop-garden which it is today—he saw beyond the Weald to the plains of Tuscany, and referred to Virgil,

. . . sunt nobis mitia poma,
Castaneae molles . . .

The section on "Excessive Drinking and how it came into England", quotes at length the description of Dido's banquet to Aeneas.

On nearly every page there is a suggestion of the all-pervading rhythm of the seasons and the bouquet of the earth. At Teynham the fruit is so fine that you might think yourself in the Garden of the Hesperides, for there "our honeste patriote Richard Harrys (Fruitere to King Henry the 8) planted by his own greate coste and rare industrie, the sweet cherry, the temperate Pipyn and the golden Renate. For this man seeing that this Realme, which wanted neither the favour of the Sunne nor the Fat of the soile, meete for the making of goode apples, was nevertheless served chiefly with that fruite from foraign regions abroad, brought plantes from beyond the seas, and furnished this ground with them so beautifully, as they not onley stand in most right line, but seeme to be of one sorte, shape and fashion, as if they had been drawne through one Mould".

But more primitive lore persisted beneath the classical façade. Thanet, says Lambarde, was an island which entirely rejected snakes, and even the soil thereof was poison to them, so that it was exported as a destroyer of vermin. Thereby hangs the possibility that the name is derived from Θάνατος (Death). But, though the idea is attractive, he is forced to reject it in favour of a more prosaic derivation from the Anglo-Saxon word for wet or damp.

Lambarde's modest skill and integrity, his refusal to be hoodwinked into "vaine lying and presumptuous ignorance", were typical of the best traditions of English empirical scholarship. He made possible a county pride and himself possessed it to a high degree. He was an Elizabethan of distinction.

The Everest "Tigers"

The Sherpas and their Country

by ERIC SHIPTON

The epithet "tigers" has been applied at least since the 1924 Everest Expedition to the Sherpas who carried stores and equipment to the high camps and thus gave indispensable support to the assaults on the final peak. Although he had known the Sherpas for twenty years, last year's Reconnaissance Expedition, which he led, afforded Mr Shipton his first opportunity of visiting their home and this is the first article to be published about their life in their native environment

MUCH has been written about the Sherpas; their exploits on Everest and on other mountains are well known. But little has been said as to the reasons for their close connection with Himalayan mountaineering; while until very recently almost nothing was known of their life in their own country, to which they are passionately and outspokenly devoted. During the past twenty years I have come to know them intimately; for they have been my companions on ten Himalayan expeditions and during the four years that I spent in Sinkiang. Last year we visited their home of which I had heard so much. It is certainly one of the most beautiful places on earth.

The fact that the Sherpas live in Eastern Nepal and have long made a practice of coming to Darjeeling to seek employment as carriers of merchandise, pullers of rickshaws and labourers in the tea-gardens was primarily responsible for their present unique position among the mountain tribes of Central Asia. For it brought them into contact with the early explorers of the Eastern Himalaya, and so enabled them to display their qualities on the first large-scale attempts to climb one of the great peaks. It was Dr Kellas who first drew attention to these qualities and on the early Everest expeditions of the 1920s they won fame for themselves, which has become an important factor in their economy and development. For since then they have come to be regarded as indispensable not only for the attempts to climb Mount Everest but for all major expeditions to any part of the Himalaya, the Karakoram and the Hindu Kush. Thus during the last thirty years these expeditions have been a regular source of profitable employment and have opened avenues of wide travel and diverse experience. It is probable that had Mount Everest been in the Western instead of the Eastern Himalaya another people, the Hunzas perhaps, would have taken their place.

The ability of the Sherpas as mountaineers has often been exaggerated. Nearly all

mountain peasants are potentially good mountaineers and the Sherpas are not remarkable in that respect. For example the Hunzas are far superior as cragsmen and could undoubtedly be trained into first-class climbers on ice and snow. It is the temperament and character of the Sherpas that have justified their renown and have won them such a large place in the hearts of the Western travellers and explorers who have known them. Their most endearing characteristic is their extraordinary gaiety of spirit. More than any other people I know they have the gift of laughter. They seem to find humour in almost every situation, which is of course an invaluable quality on any expedition and makes them very easy to deal with and to live with.

If you happen to call at one of their houses while they are having a meal they will of course offer you a generous helping of their highly spiced food; and when you suck air into your mouth to cool your outraged palate they will become convulsed with mirth, men and women alike, holding their bellies and throwing back their heads in full-blooded guffaws. They delight in a practical joke even when it is practised on themselves. There is one which I never remember failing to bring down the house. Before embarking on a long climb up a steep path they will secrete a heavy rock in the load of one of their number, and when at the top it is revealed to the victim he will laugh as uproariously as the rest.

Their complete absence of religious taboos is a rare asset among Eastern people; they will eat anything and they will fraternize readily with the people of the country they happen to be in. The women share fully the life of the men, the frivolity as well as the work. In 1935 a woman, the wife of one of the Sherpas we had brought with us from Darjeeling, came over to Rongbuk to meet us. She insisted on joining the expedition and remained with us for the rest of the time, carry-



All Ilford colour photographs by the author

The gorge of the Dudh Kosi : the only outlet from Khumbu, where the Sherpas live, to the rest of Nepal to the south



Looking down the valley of the Dudh Kosi from Thyangbochi in northern Nepal. Khumjung occupies the hollow in the left centre of the picture. Namche Bazar is further to the left over the crest of the ridge. The path leading from Namche to Thyangbochi is on the wooded slope to the right

ing a load and sharing a tent with the other Sherpas, usually quite independently of her husband who happened to be attached to the survey party. She had a bad habit of collecting all the empty tins and old oxygen cylinders she could lay hands on, so that before long she was carrying a prodigious weight of junk. Otherwise she was excellent, for she never failed to infuse spirit into the men if they showed any signs of flagging. We nicknamed her Eskimo Nell. When we returned to habitation in Tibet we were entertained to dinner one evening by the Dzongpen (a local administrative official) of Kharta. As usual a great deal of *chang* was provided, of which Nell drank a liberal share. When the meal was over she stood up and delivered

an impassioned speech: she would see to it that we reached the top of Everest; she would carry loads to Camp 6, and to Camps 7 and 8 if necessary. By the time she had finished tears were streaming down her face. Last year in Khumjung, sixteen years later, I met a little sedate and middle-aged lady, neatly dressed in a blue blouse, multi-coloured apron and embroidered cap, a large turquoise charm-box hanging from her neck, a large turquoise brooch clasping her sleek black pigtail; something of the *grande dame* about her manner. She reminded me demurely that we had met before in Rongbuk. Kusang, her husband, I recognized at once, but I found it hard to believe that this really was Eskimo Nell.



(Above) Thyangbochi, the principal monastery in Khumbu. (Below) Khumjung, one of the largest villages in Khumbu, is cradled in a hollow high above the gorge of the Dudh Kosi and surrounded by rocky glens filled with birch, rhododendron and fir. In the foreground is a Buddhist chorten





(Above) Sherpa inhabitants of the village of Pangbochi, standing before their houses. The low-pitched roofs are made of stone, resembling those of English Lakeland farmhouses. (Left) The author's host in Namche Bazar, a fine type of Sherpa. He served as porter on the 1936 and 1938 Everest Expeditions, meeting them at Rongbuk in Tibet; and also rendered useful help to the 1951 reconnaissance expedition



(Above) A school, the first of its kind, was recently opened in Namche Bazar on the initiative of the schoolmaster (in background, wearing a blue shirt). The pupils learn to read and write Nepali and Tibetan. (Below) Sherpa women spinning wool. The natural dyes they use are imported from Tibet





(Above) Fields near Pangbochi, close to the upper limit of forest at the head of the Imja Khola valley, with walls built of stones cleared off the rocky land. (Below) Yaks carrying loads down from the Nangpa La. This pass into Tibet is about ten miles away, immediately behind the leading animal





(Above) Sheep or cattle pens on the grazing grounds 17,000 feet up among the glaciers. Here, where fuel is scarce, the Sherpas live on tsampa (parched barley flour) which remains edible a long time.



(Below) Yaks grazing near Khumjung. As in Tibet, they play an important part in the local economy



Sherpas in expedition equipment carrying loads. Like most of the best load-carriers in the world they use a head-strap which takes the entire weight of the load. Normally they carry sixty pounds each, although in exceptional circumstances they can carry twice that amount over difficult ground

The Sherpas are remarkably adaptable and seem to be completely at home in any environment. I took some of them with me to Kashgar. In a fortnight they were speaking Turki, a language utterly unlike their own, with considerable fluency. I left one of them, Lhakpa Tensing, there, and when I returned some years later I found that he had almost complete control over the very large staff of the Consulate-General, and also owned a profitable melon farm in a place about a hundred miles away. Lhakpa's brother Gyalgen came with me to Kashgar on my second tour there. Fairly soon after his arrival I took him on a journey among the mountain nomads. In the first Kirghiz tent we stopped at I was amazed to see Gyalgen going

through the complicated ritual proper for an arriving guest. This ritual, which I was never able to master, involved the exchange between host and guest of a long series of rapidly spoken sentences. Later I asked Gyalgen what he had been saying; he replied that he hadn't the faintest idea; he had merely been mouthing a lot of nonsense in close mimicry of some Turkis who had preceded him, and he had obviously got away with it.

The Sherpas are almost indistinguishable from the Tibetans, with whom they have the closest racial, religious and cultural ties. They have a language of their own but they all speak Tibetan as well. They wear the same kind of clothes, voluminous coats which they tie round their waists in warm weather, long

embroidered cloth boots with thin skin soles and embroidered hats with fur flaps to protect their ears and faces. Like the Tibetans, too, they wear long pigtails with gaily coloured tassels at the ends. Unfortunately there is an increasing tendency among those who go often to Darjeeling to cut their hair short. A great many men who join expeditions as "Sherpas" are in fact Tibetans. I remember particularly one man, whom I had with me on an expedition to the Central Himalaya and who I had thought was a Sherpa, told me that he came from a place two months' march north of Lhasa.

The Sherpas always refer to their country as Sola Khumbu. There are actually two adjacent districts of Sola and Khumbu, both within the boundaries of Nepal. Sola, which lies far to the south of the main range, has a mixed population of Nepalis and Sherpas. Khumbu is the real home of the Sherpas as we know them. It is a very small area confined to the upper basin of the Dudh Kosi with its two upper tributaries, the Bhote Kosi and the Imja Khola, which converge in the vicinity of Namche Bazar. It consists entirely of very high mountains intersected by deep, precipitous gorges which are forested to an altitude of about 14,000 feet. Contact with the rest of Nepal is virtually confined to a single track running southwards through the valley of the Dudh Kosi. To the east and west the district is flanked by mountain barriers across which no way exists except at the Tesi Lopcha, a very difficult pass leading westward into the Rolwaling valley. The northern boundary is formed by the section of the main Himalaya range between Everest and Cho Oyu. There is no way of crossing this, but immediately to the west of Cho Oyu is the Nangpa La leading over to Tibet.

This remarkable pass is probably the chief economic asset of the Sherpas, for it is an important gateway for trade between Nepal and Tibet. It is approached on either side up a long glacier and is situated on an extensive icefield at an altitude of more than 19,000 feet. So far as I know it is the highest pass on any trade-route in the world. It carries a considerable volume of traffic throughout most of the year. Deep grooves are worn in the ice by the passage of countless yaks bearing the bulk of the merchandise; salt and wool from the north is exchanged for spices, cloth and all manner of small manufactured goods from the south. Yaks themselves are imported from Tibet in fairly large numbers. Substantial profits can be made, too, by bringing ponies into Nepal from Tibet; but they are not brought across the Nangpa La, nor are they

used here for transport; not because the pass is too high, for ponies are used extensively on the Karakoram Pass which is not much lower, but because of a curious superstition that if anyone attempts to take a pony across, not only will the pony die, but the owner will perish as well. The origin of this superstition is apparently in a legend built around a great rock near the pass shaped like a horse's head.

Despite its great height the crossing of the pass is often less of an undertaking than the journey through the gorges to the south. Tibetans and Sherpas come and go freely across it, not only for trade but also to attend religious ceremonies on either side of the border. The Rongbuk monastery is only a few days' march from Namche Bazar, and it was by way of the Nangpa La that scores of Sherpas used to come across to meet us when we came there on the Everest expeditions of the 1930s, in the hope of being signed on as porters.

In the precipitous valleys of Khumbu very little of the ground is capable of cultivation, but what there is fully exploited and the district is self-supporting in food. A combination of individual ownership (usually quite small holdings) with communal regulation ensures that the limited land available for tillage or grazing is used to the best of its capacity. There is sufficient rainfall to grow crops without irrigation. Wheat is grown in the lower valleys between 8000 feet and 10,000 feet; barley and potatoes are cultivated up to an altitude of about 14,000 feet. Potatoes, which, as in other parts of Asia, came from Europe in fairly recent times, now form by far the largest item in the diet of these people. Most of the peasants own land in several different, often widely separated villages. They migrate *en masse* from one to another to reap or sow or cultivate the fields according to the seasons. Thus it is common to find a large village completely deserted, the crops unharvested, while the inhabitants are working in a village at a different level, perhaps a day's march away. At the appropriate seasons the Sherpas graze large herds of yaks and sheep and goats in the rich pastures of the higher valleys. This activity is at least as important to them as their agriculture, for it supplies them with abundant milk and butter and sufficient wool to clothe themselves. Their standard of living is a great deal higher than that found in most parts of Nepal. But like many virile mountain people they have a problem of surplus population. This is why the northern trade route and Himalayan expeditions are such important outlets.

Nearly all Sherpa houses are built to the same pattern; if you have been in one you have been in all. Let me take you into the home of Tashi Phuter who came with us on an earlier expedition. It is an oblong, two-storeyed building, with carved wooden window-frames and lattice windows. The front door leads into a dark stable, through which we have to grope, pushing past the oxen or yaks, to a steep wooden ladder leading to a narrow passageway on the upper floor. A right-hand turn at the top of the ladder leads to a latrine, a dark little room with a small hole in the floor which is otherwise deeply covered with grass or pine-needles. The other end of the passage leads to the living-room which occupies three-quarters of the upper floor.

The alcove between the walled-in ladder way and the front of the house is used as a kitchen, where Tashi Phuter's wife is cooking a meal over a fireplace set on the floor. An iron frame holds her cooking pots above the fire. Beyond her is a couch on which other women of the family are sitting. In the front wall to the right of the fireplace there is a line of windows and beneath is a platform raised about a foot above the floor, covered with carpets and rugs. Here the men are sitting, crosslegged behind a low table. The seat of honour to which we shall be shown is at the end of the platform nearest the fire. The opposite wall, devoid of windows, is lined with shelves full of great copper basins, wooden bowls, china cups, bamboo churns and other cooking and eating utensils. The far end of the room is cluttered with bags of grain, ropes, wooden ploughs, mattocks and other farm implements.

When beds are needed they are made up on the floor for family and guests alike. As Tashi Phuter is one of the more well-to-do Sherpas there is a small room beyond the living-room, furnished as a Buddhist shrine.

The Sherpas are Buddhists. Though they observe the outward forms of the religion, such as muttering the prayer "*Om mani padme hūm*" in moments of crisis or exuberance, keeping to the left of *mani* walls and *chortens*, pretending to throw little bits of food to the gods before eating and occasionally making a pilgrimage to one of the monasteries, it does not impinge much upon their lives. They leave spiritual matters very much in the hands of the lamas. There are several monasteries in Khumbu. The most important is Thyangbochi which is built on an isolated ridge, 2000 feet above the junction of the Dudh Kosi and the Imja Khola and surrounded by quiet

woods of fir, tree-juniper, silver birch and rhododendron. Above the woods stand slender spires of fluted ice. To the south the forested slopes fall steeply to the Dudh Kosi, the boom of the river silenced by the profound depth of the gorge. To the north-east, at the head of Imja Khola, is the huge bulk of Chomolungma (as the Everest massif is called locally), with the peak of Everest appearing above the Lhotse-Nuptse wall. It would be hard to imagine a more exquisite setting.

With its cloistered courtyard, its dark rooms smelling of smouldering joss-sticks and rancid butter used for prayer-lights, its terrifying effigies, its tapestries and its holy books bound between boards, Thyangbochi resembles most Tibetan monasteries in all save its surroundings. In the centre of the main room or shrine there are two thrones, one for the Abbot of Thyangbochi, the other for the Abbot of Rongbuk. These two dignitaries pay periodic visits to one another. The monks of Thyangbochi enforce a strict ban on the killing of wild life in the vicinity of the monastery, with the result that hundreds of wild pheasants can often be seen feeding on the meadows outside; the birds take no notice of the approach of human beings. Hanging in one of the windows of the courtyard there is an oxygen cylinder. This curious object had been retrieved from the East Rongbuk Glacier by the Sherpas of one of the early Everest expeditions. It is now used as a gong which is sounded each evening at 5 o'clock as a signal for the women who happen to be there to leave the monastery.

The adaptation of the oxygen cylinder to the Sherpas' own needs is perhaps symbolic of their relationship with the Western world: a world whose gadgetry has made no serious impact on their lives despite the many contacts with it that their membership of mountaineering expeditions has brought them. On the contrary, their way of life has an inner stability closely associated with its native environment and the self-sufficiency which it has there attained; of this their cheerful imperturbability and confident attitude to all kinds of novelties are also symptomatic.

A different test of the Sherpas' character, however, is coming. Soon, very soon, the Sherpas will have to face the impact of Communism. For with the 'liberation' of Tibet by the Chinese Communist armies it cannot be many months before the great wave, that has engulfed so much of Asia, reaches the northern border of Nepal. The Sherpas live almost astride that border, and they can hardly hold themselves aloof.



Agriculture in Modern Libya

by DR W. B. FISHER

The territory of the new Kingdom of Libya was of great agricultural importance in ancient times. How was that agriculture maintained? Why did it decline? Can it be revived? This, the last of three articles answering these questions, is by the Senior Lecturer in Geography at Aberdeen University, who spent some years in Libya and in 1951 led a University expedition to Cyrenaica

In this concluding article on Libya we move from the fascination of re-creating a brilliant past by the technique of archaeology into a field that is inherently more restricted in scope: the geographical appraisal of modern conditions and potentialities. To most Eighth Army soldiers of 1941-3, the predominant impression in Libya was one of extreme poverty and scantiness of resources; and it would have seemed nearly impossible that the land which today provides so frugal a livelihood for its inhabitants could ever have stood in relation to ancient Rome as Canada and Australia now stand in respect to modern Britain. With this remarkable contrast between past and present, the question naturally arises whether the ancient fertility might be re-created, and if so, by what means. But before attempting an answer, it may be useful to examine the

present situation in a little more detail. It has been estimated that of a total area of 1,750,000 sq. km. only 5500 sq. km., or 0.3 per cent, is now capable of regular and sustained use for cultivation; and even of this by no means all is used at present. The main farming areas lie in the coastal plain round Tripoli (including the first hill-scarps immediately to the south) and in the uplands of Cyrenaica between Barca and Derna, with some extension as far south-west as Benghazi. In addition, we must also count the oases of the southern deserts—the Fezzan, Augila, Jalo, Jarabub, and Kufra—which support about 50,000 people from intensive garden cultivation of dates, vegetables and millet.

Libya is particularly unfortunate in that, for reasons connected with its topography and its position relative to the Mediterranean Sea, rainfall is not only small in amount and



A. J. Thornton



R. Goddard-11

The coastal plain in northern Cyrenaica, looking east towards Derna. One of the most favoured parts of Libya, it owes its fertility to the presence of small springs of water lying at the foot of the hills: the trees, farms and cultivated fields suggest Italy or Greece rather than Africa

entirely confined to six months of the year, but also very capricious, and variable in amount from year to year. About one year in every five or six, there is a severe drought—sometimes for two seasons in succession—hence when we see on a map that parts of the north have an average rainfall of 500 mm. (20 inches), which is as great as that in parts of East Anglia, it does not follow that agriculture is always possible. Several inches of rain may have fallen in a single week, and then quickly disappeared as a torrent, without having benefited the farmer to any great extent.

The poverty of the country may be indicated by a few figures. It has been calculated that the average income per head works out at £13 per annum—about 8½d per day; and that the food available in Libya gives no more than 1800 calories per person per day, as compared with the 2500 to 3000 available in Europe. As a result, most Libyan Arabs live on the extreme margin of

subsistence: their daily food is scanty and monotonous, their houses are often primitive huts, tents, or caves almost devoid of furniture, and most clothing is home-made. Shoes are a luxury for many, and three-quarters of the family income is absorbed in buying food. During times of crop scarcity (as in 1947) there can be actual starvation on a wide scale; and disease is common, even in normal times.

A general impression can be gained by examination of the state budget for Libya, as estimated for 1951-52. Taking the region as a whole, income amounted to £4,100,000, and expenditure to £5,900,000 giving a deficit that was to be met by a grant-in-aid from Britain. This deficit has been an annual feature, though variable in amount, before and ever since British occupation; and the size of the total budget (only £3 raised in income per head of population, compared with £11 per head in Egypt or £77 in Great Britain; and nearly £4:10s spent) gives a



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(Above) An Italian farm in Libya which, reclaimed from scrub and semi-desert less than twenty years ago, shows what can be done by hard work and careful use of resources. The trees, mostly introduced from Australia, are quick-growing and tolerant of dry heat; besides giving welcome shade, they anchor the soil and reduce erosion. These Italian holdings are often family affairs, run as self-contained units, and the settler's wife (left) has her own share of duties. But many settlers view the future with apprehension. What can the Italian immigrants, with their European clothes and ways of life, expect in the new State of Libya?

sidelight on economic conditions within the country.

Evidently, therefore, the restoration of Libyan agriculture to something approaching its ancient level of prosperity is a task worthy of vigorous effort. To what existing material can this be applied? There are three distinct types of farming within Libya. There is the static kind, to which we are accustomed in Europe, and which is characteristic particularly of Tripolitania. It is a remarkable fact that more than half of the best land round Tripoli is still occupied by Italian colonists, many of whom are still paying off a twenty-five-year mortgage on their farms, and who still enjoy special privileges—subsidized electric power and relatively lower taxes. The future of these Italian settlers is a considerable problem for the government: they cannot be said to be wholly self-supporting; they occupy land taken from the Arabs by the Fascist government; but their methods of farming and level of production are superior to those of the Arabs, and they produce a large part of the food required in the country.

Most Libyan Arabs live by shifting agriculture; that is, they move their fields periodically, as the ground becomes exhausted, or the rains fail in a particular spot. Yields are poorer, the quality of the crop is inferior, but land normally too dry for regular cultivation can be used, and the margin of farm-land pushed further into the desert. Shifting agriculture associated with the keeping of animals is the main way of life for most Cyrenaicans, and also for many inhabitants of Tripolitania.

Thirdly, there are the oasis cultivators of the south, dependent entirely on wells and living a self-sufficient life in isolation from the north. Failure of the rains near the coast makes little difference to their farming, but the quantity of well-water is limited, and mobile sand-dunes may obliterate gardens and even whole houses. If numbers increase, or a disaster occurs, the younger and more active inhabitants are impelled to leave and seek employment elsewhere—usually as temporary labourers in the towns of the north.

Before we consider the regenerative methods that might be applied to Libyan agriculture, we must make up our minds regarding the importance of one overriding factor which was mentioned in the previous article: the possibility of a major change of climate since Graeco-Roman times. If the greatly lowered standards of living in Libya can be shown to be due to increased natural aridity, then there is not a great deal that may be suggested

as a remedy. But if conditions of climate have remained much the same throughout the last few thousand years, then the present difficulties must be largely man-made, and there is a more hopeful prospect of their improvement once again by human effort.

The whole question of climatic fluctuation is very puzzling. Much evidence both for and against any possible change has been brought forward, and this is of many different kinds, ranging from archaeological investigation, botanical distributions, and geographical and geological features, to zoology, the personal records of individuals, and even the ancient literature and legends of nations as a whole.

The archaeologist, adducing evidence given in the preceding articles, might put forward a strong case that there must have occurred in Libya a zone where rainfall was once heavier than it is now. The discovery of ancient farm-buildings in regions now too arid for agriculture, the scale and development of human activities as revealed both by contemporary literature and by archaeological investigation, and the presence of handsome stone-built dwellings in areas where the present-day population lives in tents or poor huts, all point to the conclusion that a definite change of climate must have taken place over the last fifteen hundred years.

On the other hand there are certain natural conditions that suggest an opposite view. The enormous extent of blown sand in the interior of Libya, and the prominent features of landscape erosion that could only have been produced by arid conditions over thousands of years, may be considered evidence against a major climatic alteration. For example, it has recently been observed that in eastern Libya, sand-dunes tend to grow in length at the rate of 10 to 15 metres per year. Thus to produce a dune of 300 kilometres in length, which is not uncommon, it is necessary to allow 25,000 years of arid conditions. Also, slightly to the north-east of the Libyan sand sea, there lies a depression that continues and broadens out to form the well-known Qattara Depression of Egypt. Here there occurs a large mass of pure rock-salt which lies as a cap on top of an eminence and which seems to have protected the base against erosion. Had there been rain of any importance, the soluble rock-salt would have long since been removed. As evidence of another kind, we may refer to the diary of Claudius Ptolemaeus, the geographer of Alexandria, who put on record the number of rainy days in each year. This figure

A scene in Tripoli illustrating the conflict that may arise between farmers and herders of animals. As the first step in the reclamation of sandy areas for farming, grass and shrubs have been planted in regular lines to hold down and 'fix' the loose sand. Later, if all goes well, it may be possible to grow crops. But so long as herds of animals are free to graze down the young plants, it is unlikely that very much reclamation will be achieved



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On the other hand, many Arabs are keenly alive to the need for soil fixation, and take an active part in afforestation schemes. Here we see a Libyan nursery for young trees that will later be transplanted to areas of loose soil. The trees in the background give an idea of the size that can be reached after a few years of growth



Major W. B. Kennedy Shaw

(Above) Oasis cultivation in Kufra. The well-water, which is thought to seep under the desert area from rainier districts far to the south, is lifted three to five gallons at a time, by a donkey driven backwards and forwards. Small channels then lead the water to the fields. His part of the job is no sinecure for the donkey, to whom a 'wage' independent of his master's pay is held to be due. (Right) Since animal herding is so important to Libya's economy—and is likely to remain important whatever agricultural developments take place—a free veterinary service, with trained staffs, is provided by the Department of Agriculture. The advice of the expert is increasingly sought by many progressive livestock owners, and the smaller Arab farmer is becoming quite happy to consult the vet—even if his cow is not!



Keystone Press

corresponds closely with the present regime in Alexandria, but most unfortunately his measurements of actual rainfall do not allow a comparison with present-day methods, and so we remain in the dark as to the actual total, which would have clinched the matter.

One approach to the problem is to suggest that whilst there would not seem to have been any major change in the climate of Libya as a whole, there may well have been a very slight alteration in a narrow zone along the northern coast, giving somewhat wetter conditions in Classical times. Slightly increased aridity, developing over the last fifteen hundred years, may have been sufficient to turn the balance against successful farming in some areas; and when we add to such deterioration of natural conditions the social upheavals due to warfare, invasion, and disorganization of economy, and further bear in mind that the water-table in the soil has probably fallen owing to centuries more of erosion, it is possible to see how changes between Classical and present-day Libya may have come about.

It is obvious that the key to any modern regeneration in Libya lies in water-supply; and there appear to be three possible lines along which improvement could take place. As, unfortunately, there are no rivers of any kind which flow continuously for more than a few days, barrages and large dams comparable with those of Egypt and the Indus valley are not feasible. But the Italians had begun to tackle the problem by domestic catchment; that is, individual farms had very large roofs, from which the rain-water was carefully led to a storage-tank. This method, augmented by other catchments away from houses, might be profitably extended—it was certainly an important feature in Roman times, as Mr Goodchild showed in his first article.

In northern Cyrenaica, though surface water is absent, there is considerable percolation underground, and a number of subterranean streams occur in limestone caverns, exactly like those of Wookey Hole, Ingleton, and Derbyshire. The water is usually fairly deep down, and would need pumping to the surface for irrigation; but a careful tapping of subterranean supplies, including springs, which emerge on the northern side of the Gebel Akhdar, might furnish valuable extra resources. For an illustration of what can be achieved by a small-scale utilization of underground water in a limestone terrain we need only refer to the Lebanon, where the use of springs, supplemented by skilful

and laborious terracing, has made the region outstandingly productive. It is true that the Lebanon has a heavier rainfall and the springs are better placed for irrigation; but, with modern pumping machinery, development on a smaller scale could be attempted in eastern Libya. The Italians had in fact started an extensive scheme to use underground water; but war interrupted their plans, and uncoupled sections of piping can still be seen lying alongside an open trench in the Gebel Akhdar, just as they were left in 1940.

Beneath the desert sands in the south there are quantities of subterranean water maintained by rainfall that occurs in the northern uplands and seeps underground over several hundreds of miles. At certain places the water-table comes close to the surface, as at Jalo, where it is only twenty feet down; and date-palms, after an initial period of artificial watering, can develop roots long enough to reach this layer. The occurrence of several oases, sometimes 200 or even 400 miles from a rainy area, suggests that much of the desert is one vast artesian basin, like Central Australia, and that given modern equipment, more might be done to improve supplies in the far south.

It is not altogether accurate, however, to suggest that development is merely a matter of boring wells. Experience in other parts of the Middle East has shown that there may be formidable obstacles of another kind to overcome. Under conditions of high temperature, too much watering for cultivation can produce salinity in the soil—this has already occurred in parts of Palestine, Persia and Turkey, and is coming to be a severe problem in the Nile Delta. Also the supply of water, representing an accumulation of rainfall over several centuries, may not be inexhaustible, and usage would have to be strictly controlled.

Nevertheless, something might be done to develop oasis cultivation by the installation of light motor-pumps and artesian borings. Already, despite the isolation and difficult communications, a small trade in early vegetables has sprung up in the more accessible oases, since tomatoes ripen there ten to fourteen days before any others in the Mediterranean countries, and can thus be exported at the time of the highest price. Citrus fruit, recently introduced into the coastlands, might also do well in the south under irrigation.

Other contributions to progress could lie in attempts to improve existing agricultural



Dr W. B. Fisher

(Above) *The natural scrub-woodland on the hills of northern Cyrenaica is an important national asset. At the present time it is in danger of being seriously reduced by using its wood for charcoal-burning to provide domestic fuel (below), a common and destructive practice in many Mediterranean countries*



Dr W. B. Fisher



V. B. Fisher

Two natural handicaps in Libya. (Above) The effects of wind erosion near Tocrá, where almost all the surface soil has been blown away. (Below) A torrential run-off: the river bed at Derna is quite dry for most of the year; but two days after this photograph was taken, there was a raging seven-foot flood

V. B. Fisher





(Above) *Limestone country in northern Cyrenaica, almost devoid of inhabitants and depleted of its soil.*
 (Below) *A similar, but steeper limestone area in the Lebanon, showing what can be achieved by terracing so as to counter capricious rainfall. The terrace walls retain a layer of soil, which can be cultivated*

Dr W. B. F.

Dr W. B. F.





Dr W. B. Fisher

Date-palms growing in desert sand at Jalo. Young palms are artificially irrigated until their roots are long enough to tap the water-table, which lies twenty feet below the surface. After this, they will grow without further watering, and many are productive for one or two centuries

methods in general over the whole country; and a good lead in this direction has already been given by the Agricultural Advisers working under the British temporary administration, based on the experimental farms which it has established. The introduction of better species of seeds and plant stocks—including the new varieties of cereals evolved for dry-farming in other parts of the world—could greatly augment yields and reduce the dependence of the Libyan farmer upon poor and exhausted native stocks. At the same time, the adoption of crop rotation—including the use of soil-regenerative fodder-crops that would improve animal husbandry—together with the provision of improved but not unduly elaborate implements, would make for increased efficiency. Italian experience has demonstrated that certain tree-crops such as the olive (intensively cultivated by the Greeks and Romans), vine, almond, and castor-bean can be grown with success

alongside the traditional cereals.

Our final word must be one of caution. It is tempting to consider that progress and development are within easy reach, and depend merely upon a little effort and some expenditure of capital. But the record of prosperity in Classical days may prove only a will-o'-the-wisp for the present-day Libyan. The fact remains that the modern country is severely limited by its geographical conditions, and any improvements will be slow and costly. The Fascist government spent over £25,000,000 on Libyan agriculture alone, in order that less than 100,000 Italians could be settled, it is true, at a standard sensibly higher than that of the Arabs, but with only dubious long-term prospects. The task before the new Libyan Government is considerably greater, and its resources much smaller; but if geography appears to impose severe limitations, its findings also offer suggestions as to methods of approach.

The Fishers of Nazaré

by TOM HOPKINSON

The author was Editor of Picture Post from 1940 to 1950. He has written a novel, Mist in the Tagus (Hogarth Press, 1946), about the part of Portugal to which the following article relates

THE fishing village of Nazaré stands on a bay, one of the few bays that afford some little protection from the sea on the long stretch of coast between Lisbon and Oporto; and it is roughly half-way between the two. The bay itself is divided, like the future life, into two realms or zones; it is divided, not by a great gulf, but by an invisible though quite definite boundary. On one side, to the north under protection of the great coloured cliff crowned with a little chapel, are the bathing huts, striped umbrellas, costumes, tents and towels of the visitors: they are mainly Portuguese on holiday from the towns, with a small sprinkling of the outside world among them. To the south, where the landscape flattens out, is the half reserved for the fishermen; and to go from one part of the beach to the other is to traverse five hundred—perhaps a thousand—years; one steps straight from the world of sun-glasses, ice-cream men and children's comics, into a timeless battle with the sea.

There is no harbour in Nazaré; no quay; no real shelter from the full force of the Atlantic. Twenty metres out from shore, say the fishermen, the sea is a hundred metres deep. They exaggerate, no doubt, but what is true is that the great ocean rollers, sounding in, meet no obstruction until suddenly the steep shelf of the beach trips them up, flinging them forward to collapse in roars of foam. Even on a calm day there are always breakers: as you walk home through the stillness of the night, a white gleam shows down on the shore, a moment later comes the hollow boom; and it only needs an inshore breeze to send them raging in, to explode against a shore as steep-to in places as a house roof. Through all the air at such times hangs a fine sticky mist, that seems only to strengthen and intensify the sun-glare overhead.

A special technique of fishing has been practised for centuries at Nazaré. It is not the only method used: moored some half-mile offshore are a dozen or so big fishing-boats, perhaps forty feet long, having engines as well as sails, and not very different in build from old-fashioned sardine-boats of

Brittany and the Bay of Biscay. These stand far out to sea and fish with net or line. Many of the smaller boats also do line-fishing, one can watch the fishermen coiling down lines and hooks into the boats hour after hour; some too use the illegal *cartouches*, explosive cartridges which bring the fish up to the surface, dead.

But the method one watches from the beach, and which involves not only the fishermen, but their children, wives and grandmothers, is the drag-net; and there is something mediaeval, almost Biblical, in its simplicity, in the way so many unite in a task so arduous and, often, so unproductive. For the use of one of these enormous nets involves hours of heavy work for as many as fifty people—not only in hauling the net in, but in drying it, repairing it, loading it back into the boat, and dealing with the catch. Quite often all this work is wasted. There appears to be no way of finding out, or none known to the fishermen, when it will be profitable to employ the net, and when it will be a total waste of time: the inshore sea is simply combed from dawn to dusk, and often far into the darkness, and luck, or heavenly powers, or demons, decide whether anything shall be caught or no.

A rope anything up to half-a-mile long is made fast at one end to a pole firmly planted on the shore. One of the smaller boats, with seven or eight fishermen aboard, is then launched into the breakers: this, the mere preliminary to fishing, is an operation of the greatest skill and judgement. The boat, flat-bottomed, high-sided (from 3 ft 6 in. to 5 ft in proportion to length), square-sterned, has a soaring prow like a scimitar, or the front of a skate in an old Dutch drawing. She is pushed down to the water's edge, and one or two men scramble in: everything is in its place, nets carefully stowed and oars to hand. Watching their chance, the men rush her out onto the biggest receding breaker that seems likely to be followed by smaller ones. With yells, the men scramble in and strike out with the oars for all they're worth: the next breaker catches her and flings her up, till from the shore you look right down onto her

floor-boards. It seems she'll be flung bodily over backwards, and the men are all diving out of her head-first. However, they plug in with their oars: one or two men in the stern lean forward and push the oars which the others are pulling, and after a few seconds of suspense she's through the line of breakers, rolling on the swell, while a man perched on her stern pays out the line.

So they row out, for something like a quarter or half a mile; then over goes a grapnel on a line with a bright-painted pigskin bladder. There will be one at the other end of the long net. These hold the net upright in the water, serving also as guides to the workers on shore during the slow task of hauling in. The boat is now rowed along parallel to the shore, and the net paid slowly out astern; it has corks along its upper edge, lead on the lower; a second bladder and grapnel marks its end. These bladders are made of a pig's whole skin, sewn up minus the head, with the four legs sticking up in protest; they are painted blue, red or blue-and-silver, patched with red or black tyre patches; children carry them out into the sea and try to ride on them when the water is calm.

The boat, having set the net, now heads for shore, paying another line out astern, and makes a landing even more hazardous than the launching. On a day when the sea runs high, the men will lie off for several minutes waiting their chance. A succession of rollers pitches them about. At last the man perched like a monkey in the stern lets out a cry; the oars drive in; a larger wave picks the boat bodily up and rushes her on towards the shore—the men plying their oars desperately to keep her from slipping back into the trough. As she nears the beach, and the wave arches up to break, it seems she must come right over, but the long curved prow comes into play. She slides along on her nose for the last yards, falls back as the wave recedes—and suddenly she's on the beach. The instant this happens, the crew are overboard and clinging to the gunwales. Meantime a yoke of oxen has been backed down in readiness, a yoke or two yokes for the smaller boats, up to a dozen for the very biggest, which are pulled up only once or twice a season. A hook from the oxen's trace is banged home through an iron loop low down on the curved prow. The driver yells and cracks his long stick over the beasts' backs, the fishermen shout and heave, the oxen stagger and sink almost to their knees,

youths fling wooden rollers in under the shifting boat—and so, in short rushes of a few yards at a time, she is dragged up the beach to safety.

Chief danger to the fishermen comes, of course, in these moments of launching or landing, and despite their skill, acquired through having known the beach and its dangers all their lives, every now and then a boat capsizes and a man or two—occasionally even a whole crew—is drowned. Main responsibility rests with the man in the stern who acts as cox; often to hold the boat straight—for with her broad square stern she could easily be bashed broadside on—he trails an anchor or grapnel on a few fathoms of rope over the stern. This helps to steady her, but it has to be kept from becoming entangled in the line attached to the net, and it has also to be got in before the boat reaches shore.

Once she is safely up the beach, the crew go limp, and slouch away for a drink, if they can afford one. Their work is over, and the task of hauling up the net begins. One line came ashore with the boat; the other was fastened to a stake before she set out. At each a long line of figures, fifteen or twenty, mainly black-skirted girls or women, now begins to toil. Minute after minute, they walk the ropes up the shore over their shoulders. As each rope comes up, it is coiled neatly away by a small boy, and as each person hauling reaches the coil, he or she turns away down the beach to take up a new position three or four yards behind the last hauler at the seaward end.

Slowly the work goes on, until after twenty minutes or so the pigskin buoys are bobbing close inshore. Finally the corners of the net itself emerge, and the lines of pullers then cross ropes to close up the net's mouth. Soon, a scuttling away of dozens of crabs shows that the bag is nearly home—and often there is not much else in it when it does arrive, though on lucky days there will be a great haul of small sardine-like fish, or *crapão*. These little fish are either taken to the canning factory in the town, or laid out to dry on old nets spread over the sand. In the sun's heat they soon lose their silver gleam and become black as bits of seaweed. Old women, dressed entirely in black and looking like tree-stumps or strange objects washed up by the tide, crouch all day long, turning the fish over to dry out the other side. The women, as they walk down the beach, use a gesture I have seen nowhere else—graceful in the young, infinitely weary in the old—bending



All photographs by Gerti Deutscher

The cathedrals of Portugal contain many monuments dating from that age of great men which gave birth to Prince Henry the Navigator, and from the immediately preceding years. In the exquisite Church of the Monastery of Alcobaça are the tombs of Pedro I and Doña Inês de Castro. They lie, supported by angels, with their feet towards each other, so that they will rise, at the Day of Judgement, face-to-face. Doña Inês was a lady-in-waiting in the train of Doña Constança, whom Pedro married in the year 1341, while still Heir Apparent. Pedro and Inês fell in love; when she was banished by his father, King Affonso, Pedro repeatedly sought her out. Finally he established her in a house at Coimbra, and lived there with her. Here the nobles of the Court, jealous of her influence, murdered Inês while Pedro was out hunting. Two years later, when he came to the throne in 1357, he tortured the murderers to death. Later, he caused Inês' body to be taken from her grave, crowned and enthroned, every noble in the court being forced to kiss her hand



Fishermen wear the traditional tartan dress and long black woollen cap. The fish are sword-fish, which the men carry coiled round their arms like strips of pliant metal. Soldiers and government officials at the weighing credit the fishermen with the value of their catch

Seldom indeed is the sea so calm at Nazaré, where the Atlantic rollers break direct on to a steeply-shelving beach. Oxen are used to drag the boats up between one roller and the next, to prevent their being swamped or turned over by the waves ; for a large boat twenty-four may be used



The boats, flat-bottomed and with high-curving prows, are magnificently built to withstand the buffeting of the waves. Everything else is flimsy, owing to the poverty of the fishing-folk. The oars are often just pieces of packing-case nailed onto a pole





She wears the black shawl over which is set the hard, low-crowned hat on which she carries her fish-basket. In the old days fish-wives of Nazaré, it is said, used to run up to twenty miles barefoot carrying forty pounds of fish on their head, to get to market



The women are not beautiful, but many of them, like the men, have impressive faces—the faces of a people whose seafaring ancestors were pioneers of exploration in Brazil, Africa and the East. Their life has changed extraordinarily little in 500 years. Even today, when Nazaré is half a tourist-resort, the fishing people live as they always did. Peering through the open doors at night you may see three or four old people crouched on a floor of sand round a little fire of fir-cones—on which a few sardines will be slowly blackening for supper

Many of the fishermen make a considerable part of their income from letting their houses in the summer months to shop-keepers and clerks from the Portuguese towns. Accommodation is extremely bare. During these months fishing families simply lie down on the beach to sleep





Like the costumes of the fishwives and their husbands, that of a visitor to Nazaré recalls another age. In his long black cloak with its pointed hood, he looks like a dream of the Inquisition. It is not a Nazaré costume, he is a cattle-keeper from the Douro plains. He has just, with a lordly gesture, pointed out that the photographer had dropped a lens-shield

forward, gathering up all their layers of skirts and petticoats and letting them fall down behind the body to shake out the sand.

Fish-drying goes on on the upper section of the beach: on the lower, just above the tide's reach, the boats are grouped. One can clamber about among them, and they are worth examination. Only two things connected with the fishing are of real quality—the hulls of the boats, of stoutest timber, reinforced with solid crossboards throughout their length and ceaselessly re-tarred—and the oxen which, in a country whose fine animals are few, are splendid creatures, solid as the boats they pull. Dun-coloured with black points, their satiny coats reflect the light. They work immensely hard in short bursts of only a few seconds, to the accompaniment of blows and shouting without which they could never be induced to back steeply down into the swirling sea.

Sound hulls and stout oxen are the essentials, if fishing is to be carried on at all: masts and spars are miserable timber such as one might see used for marking out a narrow channel at high tide: anything serves for rope, and the gaff will be fastened to the mast with rag. Often the anchor is a stone, caged in a sort of net of old wire-cable. The hulls are gaily painted, black, white, red; less often blue, yellow or green. A favourite is the all-black boat with a white circle on the stern and one, like an eye, on each side of the bow. It is all less brilliant than it sounds, for the paint is of poor quality and soon loses its colour—so the impression is of black, grey, pink. The names are mostly religious—"the Sorrows of Jesus Christ", "the Holy Spirit", "the Agonies of the Cross"—and reflect perhaps the hard lives of the men who chose them.

The catch is always sold at a particular corner of the beach, under the eye of two soldiers and a Government official.

Around the selling gathers a group of women; the older ones wear black all over, the younger have black skirts and coloured blouses. Many of them wear the low-crowned black felt hat, with upturned brim and a big black silk pom-pom hanging down, which serves the same purpose as the hats of Billingsgate porters, for on them the women rest their fish-baskets.

But if the women's costumes are traditional and dignified, those of the men are unique, forming a kind of uniform for the little army, only a few hundreds strong, which fishes the sea. This uniform is both

lively and macabre. Huge black woollen caps, ending in a woollen tassel and long enough to wind round the neck as muffler: a shirt and trousers of bright check. The checks are of all colours, some tartan-like in red, yellow and dark blue; some green, yellow and white; many grey, mauve and white, or yellow, white and black. Always the same material—a thick flannel, but trousers and shirt are never of the same check, and every garment is patched and patched again, always with patches from a different piece. The shirt is of a most intricate cut: it has long sleeves, pleated from wrist to elbow, fastening with three buttons, and a turned-back cuff. There is a collar, which in bad weather covers the ears, and an ornamented front with pleats down the centre: often, too, the front is decorated with rows of little pearl buttons stitched on in threes, and there are strips, resembling braces of the same material, over the shoulders. Even the back is pleated ornamentally. The trousers are a cross between pyjamas and knee-breeches; usually rolled up to the knee, they can be let down to the ankle and fit closely round the lower part of the calf with several buttons. Down the front is a row of large pearl fly-buttons.

Such at least was the outfit new, but in most cases it is patched and repatched, dirtied by work, worn thin by ceaseless washings, bleached and rebleached by the sun. All the fishermen and women—as of course the children—have bare feet, fine big feet with each toe like a separate branch, feet which could tread on a fish-hook without noticing it.

For all their work, the fishing-people are poor. They live mostly on fish, bread and thin red wine. Few eat vegetables, and a doctor told me he had struggled in vain to persuade even the tubercular to accept a more varied diet. For all their outdoor life, their sunburned bodies, there are many among them who are sick. An important part of their money comes, not from the fishing, but from letting their little white-painted houses, dark and bare inside like the houses of North Africa, to summer visitors.

Hard, tough and narrow their life must be, but it has one notable result. It gives them faces. So that to return from the fishermen's beach and sink down for an ice-cream or coca-cola with the holiday-enjoyers is to leave a world of wood-carvings, gaunt but memorable, for the conventional plasticine or indiarubber features of our modern Europe and America.

Tales of a Surveyor

I. Ndege Ya Asali

by BRIGADIER MARTIN HOTINE, C.M.G., C.B.E.

Brigadier Hotine, Director of Colonial Surveys and a Vice-President of the Royal Geographical Society, is well known as a writer and lecturer on scientific surveying. This is the first of a series of lighter reminiscences in which he relates some strange experiences in out-of-the-way places, visited in the course of his professional career as a military and colonial surveyor

ANYONE who wants to get a balanced picture of the life of a field surveyor on the edge of beyond must be prepared for some irrelevance. What with the weather, the multifarious administrative duties necessary to maintain momentum, and the long distances to be covered, usually by the most primitive means of transport, surveyors spend about as much time actually looking through telescopes as the most be-ribboned soldiers do in actually pulling triggers on active service. And if they are wise, they will deliberately cultivate some irrelevance, lest they become too set in their ways.

Most surveyors of my extensive acquaintance do this, and their irrelevancies are sometimes weird and wonderful. A few of the more erudite wrestle with mathematical puzzles, wishing they had a copy of Einstein's latest thriller, and although this is perhaps not far enough removed from a busman's holiday, it has occasionally been done in the bush without the mathematician going completely haywire. Some have a passion for languages, handicapped as they may be through inability to carry around a sufficiently representative selection from the philological section of the Bodleian, and are not content with the mere smattering necessary to sustain life.

Some study the wild life around them and develop life-long friendships in Regent's Park and at Kew. Others consider that the wild life presses on them heavily enough without making a special study of it. It all depends on the point of view; I have never known an ardent crow-lover, for instance, among those members of the Calcutta Saturday Club who like to take tea on the lawn.

Not a few acquire interests, leading often to strong attachment, in the peoples among whom they work and in their customs and beliefs. For this, they are seldom in one area long enough for *ab initio* work, and must

learn to pin-point their own observations against a background of knowledge and experience provided by others. But the fruit of interest in any field is never reaped without some spade-work.

Others again are content to equip themselves with a pocket set and play interminable games of chess against a book of problems, and woe betide their opponents on return to civilization who get into one of these stock situations. I have known one surveyor, actuated perhaps by a calf-love for cat's cradles, who became an international expert on string figures, and found therein an unexpected bond with primitive tribes; a whole village once deserted the otherwise unparalleled delight of a gramophone to give him their undivided attention.

A few, very few, look as if they had no outside interests, but all that means is that they do not want to talk about them. They have not the mentality of the North Indian peasant who, when asked what he is doing, will reply literally and truthfully: "This way I sit". In all charity, surveyors should be given the broadest possible education, lest a hobby-horse fashioned in the greater solitudes, away from the possibility of guidance or critical discussion, gets ridden to death.

I do not propose to divulge what my own interests have been, and are, but I will say that bird-watching, which seems to fascinate so many others, has never been one of them. I have kept pigeons in camp, but for that matter so have I kept pi-dogs.

It might have been different if I had spent more time earlier among the gayer plumages of the West African Coast. Or even on thickly populated Singapore Island, the habitat of the toc-toc bird, which after a decent interval of silence utters a random number of tocs. The Chinese bet on it, because it is reckoned to be less easily manipulated than a roulette wheel. If you could catch one, discover

scientifically exactly what makes it toc, and then arrange for a predetermined sequence, there would be a large fortune in it; but no doubt there are formidable difficulties in that or the Chinese would have done it long ago.

The fact is that in the tree-savannah of the Central African plateau, where I have had most time to kill, birds do not seem to provide the dominant note. There are plenty, and much else besides, in the rare patches of *msitu*, *musito* or thick rain-forest, where as a rule it is neither necessary nor expedient to hang about. Elsewhere, there are the ubiquitous scavengers, without which life would soon become insupportable; the tick-bird or buffalo's friend, perhaps the only friend the African buffalo has; and what I should call the Maclean bird, whose sole job in life is said to be to pick the teeth of crocodiles.

Doves there are in millions, if we are looking for a dominant note; and guinea-fowl in most places, but the only essential knowledge to acquire about them is how to economize ammunition by enfilading them on a straight branch at sunset.

And of course there is what is known locally as the foreigner-bird, which very occasionally wings its way past at great altitudes and is now, after surprisingly few generations, in an advanced stage of mutation from a four-engine to a four-jet job.

No doubt others would occur to me, if I thought hard, but I have said enough, I expect, to show that any ornithologist can contradict me as flatly as he likes. On one small point, however, I do claim special knowledge. I have actually seen a bird which some authorities say is a legend, and I would not be surprised if it is now extinct. I have no other reliable witnesses, no photographs or scientifically viable evidence, and so far as I am concerned the ornithologists can take it or leave it.

As we shall see, it would be more likely to frequent the more populous districts, and for all I know it may be quite common, although I never saw more than this one. I have since met people who know someone who has seen it, in much the same way as the Indian rope-trick has always been seen by someone else.

I do not expect to be believed by experts, who seldom have any faith in human nature. I once told a bee-expert, as one reason for not wanting to buy any of his bees, that I and a couple of Africans had been savagely attacked by a swarm and should undoubtedly

have been stung to death if there had not been a river handy. His only comment was that *Apis Africanus* does not sting. I wish he had been there. I should have enjoyed seeing him remain on the bank, alone with the courage of his convictions.

The experienced traveller on foot always has a few lightly-loaded heads who can keep up with him. Round about the fifth hour, when a couple of eggs winking in the short half-light of dawn are but a distant memory, he is then in a position to order a 'brew-up'. A fire is made and a kettle boiled, a table and a chair unfolded, while the lightly-unloaded types stretch flat out in the grass a short way off and engage in cheerful badinage about the opposite sex. That fixes the time—11 a.m. by the sun.

I was reclining in the chair, thinking—but never mind about that—when a small bird appeared over the lightly-unloaded ones. By way of making ornithologists gnash their beaks, it seemed to be somewhere between a sparrow and a thrush in size, of no particular colour, and given mainly to fluttering and twittering. The recumbent ones immediately leapt to their feet, chattering excitedly, and dashed off after the bird, which had made for the bush.

My boy dumped the tea-pot and promptly rushed after them, but he so far preserved discipline, in response to an irate enquiry, as to shout back over his shoulder: "*Ndege ya asali!*"

Now this is Swahili and means honey-bird. Whatever that may be around Hollywood, the odds were that in Central Africa it had something to do with honey. But it certainly wasn't a bee. I dashed off too.

I had never known Africans get through the most openwork bush as fast. Yet they occasionally stopped flummoxed and the bird fluttered back and twittered, before fluttering off again with them in hot pursuit. This was getting interesting.

Eventually we arrived at a wild bee-hive in a tree and the bird almost drove itself mad with fluttering and twittering. It was the work of a moment to light a fire (with my matches) and smoke out the bees. The tree was then attacked with *pangas* and came down much quicker than it would have done if it had merely been obstructing my line of sight on a job.

Arrived back at the overbrew-up, I heard all about it. Apparently that is what that particular bird did for a living. According to the Africans, it ate nothing but honey, but couldn't get any for itself, so it had to go

hungry until it could induce a man to lend a hand. For this reason, some of the honey had to be left for the bird.

If you didn't leave any, the next time it would lead you not to a bee-hive but to a mamba, which is one of the deadliest snakes in Africa.

Now a mamba is said to share with the Indian *kala nag*, or hamadryad, the unpleasant disposition of wilfully attacking human beings, but that I do not believe. I have seen one with its head on the side of a path gazing at me with an eye of unwinking evil, and evidently in no hurry to clear off; but I attacked it first—with a shot-gun. I have seen another, crossing a road, rear up and go for a small car travelling fairly fast, which it hit with a sickening thud, but that I think was sheer fright. I have known an unfortunate individual who was struck by one almost without breaking step, so to speak, as it glided past. But he himself reckoned it had been disturbed by bush-clearing and he was just unlucky enough to be standing between it and its hole, or possibly its young.

All the same, I think I should have left quite a lot of that honey, just in case there was a word of truth in the story.

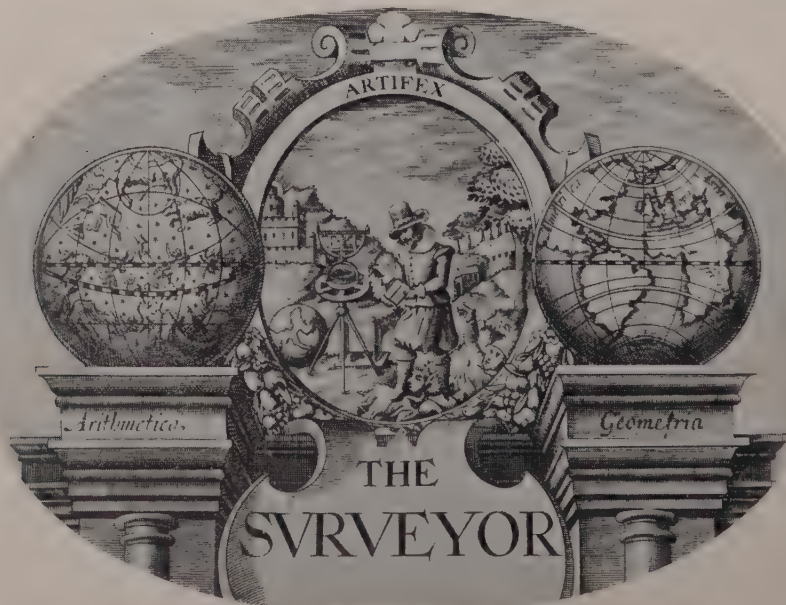
There was some argument as to whether

the over-greedy would be led to one mamba or two. One school of thought contended that mambas always hunt in couples, which may be true at some seasons, if indeed they hunt at all.

But, as I say, I should not be surprised if our feathered friend is now extinct. For one thing, this happened in the middle of the Katavi Game Reserve in Western Tanganyika, at that time heavily infested with tsetse fly, where men were not supposed to go without good reason and a special permit. That particular specimen of *ndege ya asali* must have been waiting a long time for a meal.

Moreover, it seems that a fine calculation had been made of the odds against meeting a mamba and in favour of getting any more honey. There was not, so far as I could see, any honey left in the remains of that hive which could possibly be removed by sharp finger-nails; so the odds are that the unfortunate bird didn't get much of a meal then.

Of one thing I am quite certain. If, for some time afterwards, *ndege ya asali* had fluttered over us again, it could have twittered itself hoarse before I for one would have run the risk of going after it.



British Museum

Zurich

Portrait of a City

by RENÉ ELVIN

THE city of Zurich, which recently celebrated the 600th anniversary of its entry into the Swiss Confederation, is perhaps not one that appeals immediately to the average tourist. Despite its beautiful position between two ranges of wooded hills and on the banks of the emerald-green waters of its lake, despite its immaculate cleanliness and architectural beauty, it is often ignored by the British traveller, who either goes through without stopping on his way to and from the Engadine and points east, or else, when he does stop, only stays overnight.

On the other hand, it is a city of extraordinary intellectual and economic activity, that makes a strong appeal to those who like a community to be run as efficiently as a well-kept home. For my part, I confess that I have had for many years a one-sided love affair with Zurich, and that I experience a fresh thrill every time when, approaching her in one of the swift liners of the Swissair, I discover her white buildings gleaming between the green of lake and woods. But then, of course, I am hopelessly prejudiced: Zurich is my *alma mater*, and, as a student of history, I have found her to be one of the most fascinating cities in central Europe.

I can hardly hope to have my enthusiasm for local archaeology shared by many readers, and shall therefore not attempt to give a detailed account of the prehistoric days when the pile-dwellers who were the first Zurichers developed a culture of which fine bronze vessels and ornaments that have come down to us give an impressive testimony. Nor will I recall the city's alleged foundation by Charlemagne and the pretty legends that have grown around the figure of "the emperor of the flowery beard" and his supposed activity in Zurich. Suffice it to say that, as far back as the early Middle Ages, Zurich was a flourishing community, where trade and industry thrived and whence the only silk manufacturers north of the Alps exported their products all over Europe, including distant England. At the same time, she became the centre of culture for a wide area of Europe, and her knightly poet Rüdiger Manesse compiled a collection of mediaeval

lyrics that is still one of the main sources of our knowledge of the German *Minnesänger*. Eventually, the consciousness of their growing wealth and strength led the burghers of Zurich to emancipate themselves from the Reich, a bold step made possible by their Perpetual Alliance with the *Waldstätte*—the four Forest Cantons of Schwyz, Uri, Unterwalden and Lucerne.

This entry into the Swiss Confederation in 1351 was one of the two most important events in Zurich's history. The other was the Reformation. While the former event fixed for all time Zurich's political destinies, the latter gave her the somewhat rigid and ascetic outlook that made an English visitor of the last century describe her as "a city where amusement is confounded with crime", and



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The arms of Zurich with an inscription recording successive reconstructions of a building, under the direction of appropriate officials of the city, from the 15th to the 20th century



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(Opposite, top) Zurich and the Limmat river, looking south up the lake. The slender spire of Fraumünster Church, whose origin goes back to the founding of the city, rises in the foreground; at left is the 15th-century Wasserkirche, now a museum.

(Opposite, bottom) A northward view: in foreground, the Town Hall, built over the river, and guild houses; in mid-distance the spire of the Predigerkirche and the University with its massive square tower; beyond these the wooded hills of the Zurichberg.

(Right) The venerable Grossmünster (cathedral), whose twin towers dominate the townscape and are mirrored in the Limmat.

(Below) Inner courtyard of the cathedral, with Zurich's characteristic fountain and flowers



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Heinrich Bullinger, Antistes (Dean) of the cathedral and reformer of Zurich; protector and counsellor of English Protestant refugees

that persists to this day in her stern moral tone and in the strictness of her licensing laws.

The Reformation was also the occasion of the closest and most friendly relations Zurich had ever hitherto had with England. When, after the accession of Mary Tudor, English Protestants were persecuted for their faith, they found a ready asylum in Switzerland and especially in Zurich which, under Zwingli and his successor Bullinger, had become one of the strongholds of the new faith. It was here that the first Bible in English was printed (in Miles Coverdale's translation) in 1535. The printer was Christopher Froschauer, who also published John Foxe's famous *Book of Martyrs* and numerous English religious tracts. The publishing house he founded subsists to this day (under the name of Orell Füssli) and was later responsible for publishing the first German translations of the works of Shakespeare and Milton.

The refugees included many of the leading English reformers who were Bullinger's pupils for several years. When they returned, they became doctors of divinity, professors at Oxford and Cambridge, heads of colleges and universities; five were immediately made bishops and three rose to the dignity of archbishop. Their influence on the body of doc-

trine of the Church of England was thus profound and lasting, and their gratefulness to their Zurich host and teacher was remarkable. "If but a Zurich dog should come over to me, I would make the most of him", wrote John Parkhurst, Bishop of Norwich, to Bullinger. And John Jewel, Bishop of Salisbury, grew lyrical when he remembered his stay in Switzerland: "Oh, Zurich! Zurich! how much oftener do I now think of thee than ever I thought of England when I was at Zurich"; while James Pilkington, Bishop of Durham, wrote: "I can truly say of happy Zurich what the Psalmist speaks concerning Jerusalem, 'if I do not remember thee, Jerusalem, above my chief joy, let my right hand forget her cunning!'" The refugees also gave their former hosts a number of beautiful cups, and Queen Elizabeth sent a particularly fine one to Bullinger; they are now prized possessions of the Zurich National Museum.

The city must have been particularly attractive at that time: Benvenuto Cellini, a fastidious artist and seasoned traveller, speaks in his autobiography of "*Surich, città meravigliosa, pulita quanto un gioiello*" (Zurich,



Loving-cup of silver-gilt presented by Queen Elizabeth to Heinrich Bullinger in acknowledgment of the hospitality accorded to English Protestants exiled in the reign of Mary Tudor

marvellous city, polished like a jewel). And this was by no means the only enthusiastic commendation the city received either then or later. Thomas Coryate, an English visitor who had travelled throughout the then known world, said of her ancient college, the Carolinum: "For though it be no Vniuersitie to yeeld degrees to Schoole to the studente, yet it hath bred more singular writers (at least in my poore opinion) than any one of the famousest Vniuersities of Christendome"; and Goethe, who paid Zurich several visits, said that she gave "a charming and ideal conception of the finest and highest civilization".

This was high praise indeed; but there was good reason for it. Throughout the 17th and 18th centuries, Zurich had been one of the most peaceful, enlightened and prosperous cities in Europe, and had given birth to more than her share of those "singular writers" to which Coryate had referred, to say nothing of distinguished scientists, painters, architects, engineers and musicians too numerous to mention. One name only may stand for many: that of the great philanthropist and educational reformer, Heinrich Pestalozzi (1746-1827), for it was largely thanks to his lasting influence that Zurich devotes proportionally more to her schools than any other city of comparable size.

It is in keeping with this devotion to education that the two secular edifices dominating the city should be the University and the Federal Polytechnic School. The latter was built by a German architect of genius, Gottfried Semper, who had to seek asylum in Zurich when he was persecuted in Germany for his liberal opinions—one of many refugees who more than repaid the hospitality they enjoyed by the work they did in their new home. In its severely simple lines, relieved from monotony by admirable proportions, the "Poly" (as it is called locally) reflects the strict puritanism that governed Zurich architecture for centuries and foreshadows the somewhat harsh functionalism prevalent today. The University, completed just before World War I after the designs of the Zuricher Karl Moser, commands the outline of the



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Statues of the four Swiss reformers (Calvin, Zwingli, Guillaume Farel, Théodore de Bèze) at St Paul's Church; exemplifying the wide use of modern sculpture in Zurich

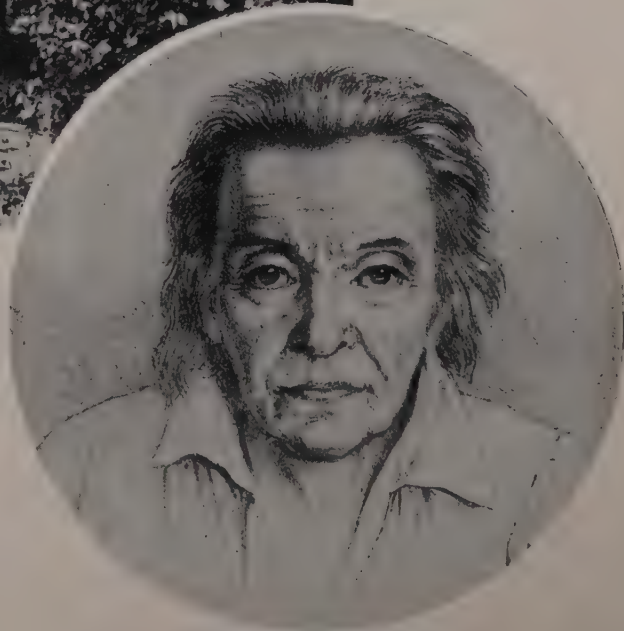
city from the height of its massive square tower and is, with the possible exception of the churches, its most impressive building.

Several factors have contributed to make Zurich one of the best-built and best-planned cities in the world today. The natural advantages of the site are one. Another is the fact that, for centuries, she had to defend herself "against the envy of less happier lands" and to build, as she increased in size, one set of fortifications after another. As she outgrew each, the site of the former earthworks, moats, walls and towers reverted to peaceful uses as wide, tree-planted boulevards, which formed a first, rough, but not ineffective, kind of town-planning. A third factor was religion: the austere Zwinglianism which governed her daily life since the Reformation and persisted almost until our own times frowned on osten-



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Since the early Middle Ages Zurich has been one of the great centres of learning in Europe; it was the birthplace of (right) Heinrich Pestalozzi (1746-1827), the reformer of education, and is now the seat of Switzerland's chief university, dignified by the building (above) which was designed by Professor Karl Moser and inaugurated in 1914





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The new Gymnasium (Cantonal School) ; its severely functional architecture is relieved by frescoes, which have experienced an interesting recent revival in Switzerland and particularly in Zurich

tation, and nearly all private houses, even those of the rich, were therefore built with a dignified restraint that, far from being inimical to good design, actually encouraged it. This was particularly valuable during the 19th century, when elsewhere the wealthy delighted in erecting for themselves over-ornate houses in debased imitations of historic styles, while speculative builders constructed for the underprivileged those hideous tenements that rapidly turned into squalid slums. The relative equality in wealth also helped in this latter respect, and there are no slums in Zurich today.

A further lucky factor was the nature and location of her main industries. The textile and machinery works which (together with banking, insurance and trade) are her chief sources of wealth, are located in the distant suburbs and in satellite towns. Being essentially 'quality' industries, they did not generally require vast spaces in which to expand,

and they drew their motive force previously to a large extent from water-power and now almost without exception from electricity. The consequence is that visitors from our industrial cities find Zurich unbelievably free from smoke and grit and that her buildings remain for decades gleaming white and weather admirably.

These natural advantages have been improved upon by conscious efforts. Zurich was one of the first cities to pioneer in town-planning. In this, the authorities were helped by the fact that they had for centuries the power to purchase and own land: of the city's area of about 20,000 acres, of which about 30 per cent are open spaces, they own nearly a quarter, and another 3000 acres, mainly of woods, outside its precincts.

Moreover, they had a full-time Town Planning Department, with a staff whose salaries before World War II totalled £12,000 a year, at a time when the London County



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(Above) *A Protestant Church in the Wollishofen district, designed in 1934 as a "hall for sermons".*
(Below) *Bellaria Housing Estate, one of many similar modern working-class developments in Zürich*



volgensinger



Beringer & Pampal

(Above) *Bleicherhof*, an office block which has trade show-rooms upstairs and garages in the basement.
 (Below) *Bellevueplatz*, a busy tram junction, with a waiting hall, shops and underground conveniences

Beringer & Pampal



Council disbanded the Greater London Regional Planning Committee headed by Sir Raymond Unwin—because it could no longer afford the yearly expenditure of £3000 for it!

This early realization of the necessity of well-regulated town-planning came just in time, for the population grew from about 40,000 one hundred years ago to 400,000 now; it was fortunate that its most rapid expansion occurred within the last forty years—during which it practically doubled—for by then the municipality and people of Zurich were fully aware of the dangers of haphazard development.

This swift growth in the last four decades is due in the first place to the expansion of trade caused by the neutrality of Switzerland in two World Wars. From 1914 to 1918, and in the years following, a large number of refugees from Germanic countries settled in Zurich and brought their skills and trade connections along with them. Not all of that trade, which during the war was based on the supply of goods to the warring nations, remained permanently in Zurich, but enough was started to give her economic position a further impetus. That Zurich should have been selected rather than Basle, Berne or Geneva, was probably due to her strategic location at the crossing of the two chief railway lines in Switzerland. Moreover, the many banking and trade facilities offered by Zurich were a decisive advantage.

While trade prospered, culture and the arts flourished equally. During World War I, the belligerents, recognizing the privileged position of Zurich as a show-house for their respective cultural goods, sent their best theatre companies and orchestras to Zurich; artists like Ferruccio Busoni settled in Zurich during the war and attracted many students of the arts to what became, more than ever in the past, "Limmat Athens". It was there that Tristan Tzara founded the Dadaist movement which was to bring, if not a major revolution in European culture, at least a valuable contribution, since widely exploited, to the understanding of the importance of the subconscious in literature and art. As the city of C. G. Jung, Zurich became, with Vienna, the Mecca of psycho-analysis. The literary tradition started by Bodmer, Breitingen, Gessner and Lavater and nobly continued in the 19th century by Gottfried Keller and Conrad Ferdinand Meyer, was and is kept vigorously alive to this day. Zurich's University and Polytechnic have been, and still are, distinguished by many eminent teachers, among whom Albert Einstein, who taught at the Poly early in his

career, is only one of numerous famous names.

The dramatic arts, always in honour in Zurich, were further enriched, immediately after World War I, by the influx of many excellent German and Austrian players escaping from their famine- and inflation-ridden countries; many of them stayed on even after the return of more normal conditions, and helped to make the *Schauspielhaus* one of the leading theatres in German-speaking countries, while the *Tonhalle* Orchestra is one of the best in Europe.

More remarkable still is the high distinction of Zurich architects and town planners, who have evolved a style that is wholly contemporary and yet completely in keeping with the ancient traditions of their country. No structure could be more 'functional' than the wooden Swiss chalets; yet few would contest that they are beautiful in their rugged simplicity and perfect harmony with surrounding Nature. Similarly, the modern housing estates, office blocks and public buildings in Zurich could hardly be plainer; yet they wear their 'functionalism' with a difference. Careful attention to modelling and proportions of façades, painstaking workmanship in all external and internal details, differentiate them from the mechanical and lifeless cubes that are all too often taken to be the last word in modern architecture.

This does not mean that Zurich designers are necessarily more talented than ours; but they express themselves now in an idiom that has become natural to them, in much the same way as our own 18th-century builders seemed incapable of putting a footnote wrong. Moreover, they are sustained in their labours by the understanding and interest of the population, which is encouraged to visit new buildings on their completion. Indeed, one might almost compare the enthusiasm of the Zurich citizens for new building to that of the cathedral builders of the Middle Ages. Where else would one find nowadays an electorate voting by an overwhelming majority to spend £20 per head of the population in order to tear down an infirmary that, by normal European standards, was still quite adequate, and to build in its place a hospital no larger in the number of beds but ultra-modern in all its equipment?

Equal in significance with the architectural style used in Zurich is the integration of Nature with built-up areas achieved there. Nowhere are trees and gardens more lovingly tended, and Zurich could best be described as an outsize garden city. Apart from her large, beautifully kept woods, her streets are planted with some 18,000 trees, mostly lin-

(Right) A superb swimming pool is one of the latest amenities provided by the Zurich authorities, but its 25-mile-long lake (below) remains the city's main 'lung' and principal pleasure-resort. Rowing, sailing, swimming are enthusiastically practised. The Albis chain of hills (seen on the right) offers a fine training ground for alpinists, and the Alps beckon irresistibly to practised mountaineers. The lovingly tended trees and gardens form an extensive park-promenade round the lakeside, and man vies with Nature to make Zurich an "outsize garden city"



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Sechseläuten, Zurich's annual spring festival. As six o'clock strikes, a giant snowman made of cotton-wool to represent winter is burnt while members of the guilds ride round the pyre

dens, so that, in summer, the all-pervading fragrance of lime is one of her characteristics; her public gardens cover an area of nearly 200 acres, and her playing-fields one of 175 acres. Practically every square and many street corners are embellished with fountains or water-springs, adorned with pleasant flower-beds and sculpture.

The numerous modern statues to be found at every vantage point in Zurich are one of the ways in which the municipality, with the full approval of the citizens—who have to ratify by their vote every major item of expenditure—encourages the arts.

Zurichers may not be at first sight and on the whole as attractive as the city they have built. Their dialect—the *Züridütsch*—is harsh, their manners are often rough. But nobody is more ready to assist anyone needing help, including foreigners. The shopkeeper will not only receive his customer with a smile, but will go out of his way to be helpful to him, even if the goods wanted are not available and the merchant has to direct his client to competitors. And, contrary to the reputation for parsimony attributed to the Swiss,

they can be overwhelmingly generous both when their civic pride is appealed to and when any emergency arises.

Industry, efficiency and earnestness may not be the most amiable of qualities and may sometimes even be found somewhat irritating: thus, foreigners may be taken aback by finding that they are expected to meet managing directors at 8 o'clock in the morning. Yet, in their earnest way, Zurichers can unbend. Every third Monday in April, all business ceases for the *Sechseläuten*, the annual procession of the guilds, whose members, caparisoned in their traditional costumes (including the Arab garb of the *Kämbel* guild) ride in state to a lawn by the lakeside, where the *Böög*, a figure representing winter in the shape of a snowman filled with fireworks, is burnt amid a large concourse of the population and peals from all church bells.

When it comes to organizing festivals, few cities can surpass Zurich, whose management of the Swiss National Exhibition in 1939 was a model of what such events should be. When, in June 1951, the 600th anniversary of the city's entry into the Swiss Confederation was celebrated, all business stopped for 48 hours; though it rained continuously, this was not enough to damp the popular enthusiasm, and processions and dancing in the streets went on under a forest of umbrellas; even in their pleasures, Zurichers show the grit and determination that have made their city successful.

I mentioned at the beginning that I had a prejudice in favour of Zurich. She may have her faults, and she may not arouse a flush of passion in *l'homme sensuel moyen*, but for people who admire her natural and architectural beauty and who can appreciate her intellectual achievements, she will always be the object of warm and abiding affection, as she has been in the past for such men as Goethe, Richard Wagner, Thomas Mann, James Joyce and Paul Valéry—all, in the latter's words, "*amateurs de Zurich*".